

ITEMS OF INTEREST.

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Notes from the Profession.

"WAS IT HONEST?"

NORMAN W. KINGSLEY, NEW YORK.

In the *ITEMS OF INTEREST* for April, I was interested in a short article with the above caption, by Dr. L. P. Haskell, and I should like to apply the same query to the following narration of facts, which occurred in my own experience, but no matter when.

A lady called on me with an entire upper and under denture of continuous gum on platina plate, saying that the set had but recently been made in a distant city to which she was not to return for a few months. Before leaving her home she was told if they should hurt her to apply to me, and for that purpose she came. I found that both sets were irritating her gums rather severely about the borders. The upper plate had the appearance of having warped, and was pinching on both sides, while the lower one was too deep. I cut away the places indicated as much as I thought would be necessary to give relief. In a few days she visited me again with the same complaints, and also a third time. At the last visit she was accompanied by her husband, who seemed to be very much put out by her continued suffering, and demanded somewhat severely why I did not make her a new set. My reply was that I did not consider the patient was mine; I was doing what I had done without charge and as a favor for the dentist who sent her, and I was not at liberty to even suggest a new set. He then said, "I want you immediately to make her a new set, and as you know where these have troubled her, see if you can't make something that will avoid that." I did as requested, and, with my observation of the others, it was not difficult to make her a set, which, without any alterations afterward, gave her entire comfort—so much so that she wrote me in a few weeks, saying they were the only artificial teeth she had ever worn with perfect satisfaction, and wanted a duplicate set, which I also made. These were made with such exactness that they were with the other set absolutely interchangeable.

Two or three months afterward I sent my bill, which amounted to five hundred dollars for both double sets, and twenty dollars additional for fillings for a daughter. No attention was paid to the bill. Subsequently I made a draft on the gentleman, which came back protested; fees, \$1.70. A year from the time the work was done I met the dentist who sent her to me, who told me that if I would send the bill to him with authority to settle it, he could effect a settlement. I sent the bill (\$520) with such authority. In the course of a few weeks I received an express package on which I paid one dollar, and on opening it I found one dollar and fifty cents (\$1.50) and one upper and under set of the teeth which I had made, with a statement from the dentist—that under the authority given him he had settled with the man by accepting one set of teeth taken back and two hundred and seventy dollars; that he had paid a collector eighteen dollars and fifty cents (\$18.50), and as he had never received anything for the set of teeth which he had made, he had appropriated two hundred and fifty dollars for that purpose and the balance of one dollar and fifty cents (\$1.50) I would find enclosed.

And to this hour I have never received another cent from that claim.

THE IMPORTANCE OF PATHOLOGICAL STUDY.

DR. L. C. INGERSOLL, KEOKUK, IOWA.

Some young practitioners, and those even who have been longer in the practice of dentistry, will say, perhaps, after reading the above heading, give us something practical—something on artificial teeth, on filling teeth, or on how to make dentistry a financial success; that is what we want. Well, I will take you on your own ground. You seem to think there is no money in pathological cases, and therefore no incentive to study pathology. I will agree with you that, in general, dentists get little money for the treatment of pathological cases. But who is responsible for this? Certainly not the public who go to dental offices for the sole purpose of preserving their teeth, and who pay their bills as willingly for one operation as for another, if found necessary. In fact, very few dentists are accustomed to make any charge for treatment preparatory to filling. The nearest the majority come to remuneration for such treatment is to charge a little more for filling when treatment is required; and then, rather under the pretense that such teeth have large cavities to be filled. If no charge is made for treatment, no money is paid for it, and the patient is left with the impression that no special service has been rendered, except in the operation of filling.

So long as dentists assume there is no money in pathological cases they will make no persistent efforts to save teeth requiring such treatment.

The fault, however, is not here, primarily. It is in the ignorance of dentists concerning dental pathology. The conscientious man, unable to anticipate his success in pathological treatment, does not feel willing to put his patient to the expense; neither does he feel willing to do such work and lose his time. So in either case the patient submits to the loss of the teeth—a loss occasioned by the dentist's ignorance of the nature of the disease presented for treatment, and his ignorance of any method by which he could make treatment a success. Thus many teeth are sacrificed to the forceps, that by proper treatment might have been saved.

I repeat, then, there is no fault on the part of the public in their willingness to pay for whatever is needful to be done in preserving their teeth when they shall be inspired with a reasonable confidence that the operation will be successful. Patients are as willing to pay ten dollars to have a tooth saved in one way as in another—as willing to pay ten dollars to have a tooth saved from loss by *peripylema* as to have another tooth saved from loss by *decay*.

Not long since a lady, who had lost her upper central incisors by the loosening process of disease around the roots, said to me, "I would willingly give two thousand dollars to have them back again." While this was an extravagant expression, made easy by her wealth, and also by the fact that to have the teeth again in their places was an impossibility, yet I know she would have been willing to pay a reasonably large fee if these teeth could have been treated and saved. But her dentist had made no well-directed effort to save them. Another lady said to me, only a few days ago,—and she was a lady of abundant means—"I would rather wear calico dresses all my days than have a tooth extracted that could be saved."

These are but specimens of many; and still more could be presented had the public a reasonable assurance that there is a cure for diseased teeth and roots. Once let the community feel that dentists have by careful study, observation and experimentation, come to an understanding of the nature and treatment of those cases formerly considered incurable, and they will be as willing to pay for therapeutical treatment of their teeth as for mechanical and surgical.

I have said thus much on the money side of the question. But a higher motive should influence a dentist to study pathology. The man who practices dentistry solely for the money there is in it, soon loses the confidence of his patrons.

To be the largest sharer in the confidence and compensation of the public, a dentist should have such feelings of benevolence, that a patient will feel that he desires to do him good—that he has conscience and good will mixed with his practice.

On the other hand let a patient feel that the operator cares not a whit for *him*, or what he does for his teeth, if he gets the money for his work, and he will see so plainly the greed for money, in the charge for the operation, that he will be shy of such charges in the future.

Benevolence should be one of the highest incentives to the study of dental pathology as a means of doing the greatest possible good within the range of dental practice. The good done proves itself, in time, and carries with it the obligation and the demand for a just compensation. Honest people are sure to recognize this obligation, and to meet the demand in a generous spirit.

Poison in Rubber Plates. Again this vexed question comes up. The following testimony of "A Dentist" is about as nonsensical and untruthful as anything we have seen.

A dentist, who was called to testify a day or so ago in a case in which a woman whose face had been ulcerated, as she believed, by the use of a set of false teeth furnished by the defendant, testified that he had examined the plate. It was called red rubber and was composed of 36 parts of sulphide of mercury (vermillion), 48 parts of rubber and 24 parts of sulphur. He would be ashamed to turn out a plate like one in question, which seemed to be composed of the very commonest material. Such a plate would cause a softening of the membrane of the mouth by reason of the mercury, which made other and further conditions, such as the malady in question, possible. In pink rubber plates there is 10 per cent. of poison, but in black rubber plates there is none. When he used red rubber he told his patients it was poisonous. Once he made a set for a New York lady of red rubber, and she was poisoned, and talked of suing him for damages. In these cases the mercury oozes out and softens the bone and tissue of the roof of the mouth and causes salivation and the breaking away of the bone. He had never used that material since his lady patient was injured.

After reading such a statement as the above we do not wonder at the following:

"A Mrs. Henry Brader, of Fulton street, Brooklyn, this morning commenced an action to recover \$50,000 damages from David Longnecker, dentist, for alleged poisoning from a new set of teeth which she had ordered from him. The defense is a general denial, and, as in the canned goods case, an effort will be made to show that the plaintiff's malady is the result of hereditary or acquired disease."

We made rubber plates for nearly twenty years. During this time, we never saw a case of poisoning from rubber, either of our own make or of others. We have seen many instances of extremely sore mouths, both from rubber and gold, but which were easily healed by remedying the fit of the plate.

AMALGAM—ITS USE.

DR. S. F. DUNCAN, WILMINGTON, ILL.

[Read before the Central Illinois Dental Society.]

Though there has been much said pro and con in regard to the use of amalgam for filling teeth, there are some facts we must look squarely in the face.

So long as we have a poorer class of patrons, we are under obligations to serve them in the most economical way. Many of us have patients who cannot pay the price of operations in gold, and yet they need our services as badly as those of the wealthier class. In justice to them and ourselves, what better service can we render than to fill their teeth with amalgam?

We have no other cheap material that will answer the purpose in a large majority of cases; and by carefully preparing the cavity and by properly using the material, we can make a reasonably good filling and thus do those patients, whom we have always with us, a service for which they are able to pay and that will reflect on us no discredit.

How shall this be accomplished?

First, the cavity should be as thoroughly prepared as possible; if a deep one, it must be lined with the oxyphosphate, and specially should this be done if we leave any portion of partially decomposed dentine in the cavity for pulp protection, which is often of great importance. All frail walls and overhanging edges should be cut away. I would not bevel the margins of the cavity as much as for a gold filling, as amalgam has not so much edge strength and if thin, attenuated edges are left they may chip off, leaving a rough margin which will collect food to decompose and cause further decay.

After the cavity has been thoroughly dried with the warm air syringe, the amalgam as soon as mixed, should be placed in the cavity and packed hard with suitably adapted instruments, for if it is permitted to stand till crystallization has commenced, it will be impossible to make a good filling of it, as the mass will not again unite after the crystallizing process has once been disturbed, which I think is one very fruitful cause of failure. In finishing amalgam the same care and thoroughness should be exercised as if the fillings were of gold; and this can be done at a subsequent sitting, after the filling has thoroughly hardened.

Just here I wish to say a word in regard to the instruction given in our dental colleges, in many of which the use of amalgam is not taught; the faculty, I suppose presuming that any one who can make a good gold filling can also use amalgam successfully without any special instruction in reference to it. Now this is certainly a mistake. The process is in many respects different, and to fill a cavity properly

with amalgam is in many cases almost as difficult as to fill it with gold, though not nearly so tedious. I have seen students from dental colleges, where the use of amalgam was not taught, who could make a fair filling of gold, and yet when amalgam was to be inserted the material was mixed into a mere paste and literally plastered into the cavity, no attention being paid to its proper consistency, its proper condensation, or the proper contour of the finished filling. Such fillings cannot be expected to save teeth, and as a large majority of these students will probably have occasion to fill many teeth for the poor, it is simply justice to the students and their patients that they be taught in the dental schools how to use amalgam in a proper manner. —*Ohio State Journal*.

PAINLESS DENTISTRY.

[Dr. C. W. Pursell, of St. Mary's, O., sends us the following —Ed. ITEMS]

Here is a black eye for the dental profession, which I copy from the *Medical Advance*, and written by D. B. Morrow, M. D., of St. Louis, Mo. We sometimes run across physicians who are troubled with the "big head," and this is one that has got the complaint bad. Hear him:

The treatment of a protracted intermittent fever by allopathic surgeons during war times ruined my teeth as it did my health, and was afterward the means of converting me to a belief in and a practice of the similars for the cure of disease. I regarded my teeth as essentially a part of my physique and as necessary to my health and general well-being as my strong right arm. I would as soon have parted with the one member as the other. I lost a few of them through the ignorance and stupidity of that special branch of the medical profession known as dentists. During a painful hunt among these specialists for some one who could repair my teeth, it was discovered that they were only mechanics, and indifferent ones at that. One killed a nerve; all wanted to extract my teeth and replace them with false ones, because they were so sensitive they could not remove the diseased dentine. A mercurial amalgam filling was the only other thing they knew. Those fillings only caused my teeth to decay worse and kept them too sore to use. Judging from personal observation and the number of teeth extracted that could be made as new by a little painless manipulating, dentists are no wiser now than then.

In June, 1875, I requested Dr. J. W. Dennis, of Cincinnati, Ohio, to try obtruding painful and sensitive teeth with heated carbolic acid, saying at the time that dentists should be able to remove the soreness, remove the decayed dentine, place a cap over the exposed nerve cavity and a filling over that, and make a serviceable tooth. He said, "That is what we would like to do, but we have never been able."

In three weeks from that time he excavated the decayed dentine from my teeth, capped five exposed nerves and filled the cavities with gold. The cap of the nerve cavity is now a conductor of heat, and, by this process, those teeth which were as sensitive as my eye were restored as well as those not decayed, and have never troubled me since. Some years afterward he showed me a tooth treated in that way; the nerve cavity capped, a temporary filling placed and neglected for a year when I examined it. New dentine had been formed, and the tooth was healed sound and well as an ulcer on the skin would heal. Dr. Dennis will verify this statement.

The foregoing case shows it is possible, by proper treatment, to restore diseased teeth by natural processes instead of the usual ignorant method of the dentists. In my opinion dentists have done the teeth more harm than they ever did good; and I maintain that the physician should be consulted for an aching tooth as much as for any other aching member, and that when he has cured it he should send the patient to the repair shop of the dentist, if necessary.

Every physician should instruct the dentist in painless dentistry, and insist on its practice for his patrons. Dr. Dennis saves thousands of teeth annually, which would have to be destroyed without the use of hot carbolic acid. He was an allopathic physician and dentist of twenty-five years' practice, and deemed my process of such value as to apply for a patent on it. Yet, I have described the process to various leading dentists of the country, who ignored it because of its simplicity, or were not manly enough to acknowledge its utility, if used.

Pine tar creosote, which is mild, if heated and applied to ulcerated and sore gums, is an excellent remedy for their cure. I do not think this process of curing sensitive and decayed teeth has ever been given to the public, though it has been stolen and used by several dentists who would probably not have used it if it had been given them. The relief of pain is instantaneous.

Extracting Teeth with the Pistol.—Old Dr. Mousey extracted teeth by fastening a strong piece of cat-gut securely to the tooth, to the opposite end of which he affixed a bullet. With this bullet and a full measure of powder, a pistol was charged, and when the trigger was pulled, the operation was performed effectually and speedily. Once a gentleman who had agreed to try the novelty, and had even allowed the apparatus to be adjusted, at the last moment exclaimed, "Stop, stop, I've changed my mind!" But I haven't, and you're a fool and coward for your pains," answered the Doctor, pulling the trigger. In another instant the tooth was extracted, much to the timid patient's delight and astonishment.

DENTAL MATERIA MEDICA—OLD AND NEW REMEDIES.

A. W. HARLAN, M. D., D.D.S., CHICAGO.

[Read before the Central Illinois Dental Society.]

It is said that fashion has much to do with the prescribing of certain remedies in the general practice of medicine. Whether this could be said of the practice of dentistry my hearers must determine. When I began the practice of dentistry, not yet twenty years ago, very few remedies were to be found in the cases of practicing dentists. Arsenic, morphia, laudanum, chloride of zinc, nitrate of silver, creosote, carbolic acid, tincture of iodine, chromic acid, Labarraque's solution, tannin, sulphuric acid, aconite, blood-root, alum, valerian, arnica, aqua calcis, camphor, white oak bark, blue vitriol, Monsel's solution, nut galls, krameria, myrrh, oil of cloves, cinnamon, acetate of lead, caustic potash, permanganate of potash, pyrethrum, mustard, peppermint and a few others constituted the whole of dental materia medica. Very few dentists made use of all these. Many not half, and the majority not more than half a dozen, but they treated all diseases presented with their simple tinctures, decoctions, and essences, without much regard to their value for the relief of the case in hand. A change has slowly taken place, and we find our materia medica has grown with other departments in the practice of dentistry. We would as soon expect to note the absence from a well equipped office, of the dental engine, as to learn that certain new remedies were not in the medicine case. Who can get along now without iodoform, menthol, eucalyptus, H_2O_2 , eugenol, terebin, iodide of zinc, aluminum chloride, resorcin, cocaine, tonga, cannabis indica and hosts of other remedies which have gradually been introduced, many of which are never to be abandoned till something better can take their places. I am not of those who cast aside as worthless the old sheet anchors, unless there can be substituted equally efficient and pleasanter smelling and tasting remedies. We understand, I think, the why and wherefore of using remedies better than formerly, and are not in the habit of using or prescribing drugs unless we expect to obtain a certain result. It is to the increase of our knowledge of the causes of diseased conditions that we must ascribe the multiplicity of new remedies. Many drugs now in use are prescribed because we get certain effects from their systematic administration, not because we understand their mode of action. This is not scientific but it is the best we can do till we more fully understand their physiological action.

It is certain, we use carbolic acid for its local anesthetic property, because it is antiseptic, escharotic, stimulant and styptic. Our great need is a safe and certain local anesthetic for obtunding sensitive dentine. Whether such a remedy has been discovered we must await

the verdict of our patients. Many remedies have been used and proposed in the past fifty years and much success has been claimed for certain substances, but none are quite satisfactory. Certain remedies which require time to produce the desired effect, we have, but they do not act quickly enough. Alcohol, glycerine, chloroform, tincture of aconite, aconitia, carbolic acid, Robinson's remedy, chloral and camphor, the various preparations of cocaine, cannabis indica, chloride of zinc, menthol, veratria, sulphuric ether, morphine, sulphate of atropia, iodoform and a few others. Some are valuable in certain cases. They must all give way however to cocaine and cannabis indica. Of these two, my preference is decidedly for cannabis indica. I began experimenting with a weak tincture then a stronger till I settled on the use of the fluid extract, Squibb's, or the normal liquid cannabis indica of Parke, Davis & Co. It seems at present impossible to obtain a more concentrated form than the fluid extract. I have experimented with cannabis in solution but cannot report my results at this time. It should be applied in the cavity after the rubber dam has been adjusted. When the necks of teeth are sensitive or the gums are tender they can be benumbed by painting with the ordinary tincture, after which a ligature or clamp may be applied without producing pain. I do not expect to obtund sensitive dentine entirely, in less than five minutes, and then only by repeated applications. The patient should not be allowed to swallow any considerable quantity, as the medicinal dose is v to x minims (Brunton). It may do to extract some roots and teeth by using an application like Von Bonhorst's, three to five minutes will suffice in most cases. I have extracted painful pulps by its use without any discomfort to the patient. It will always produce this result for all patients. It is not injurious to the structure of a tooth or contiguous parts. A drop of the tincture injected into a pyorrhea pocket a minute or two before removal of germinal deposits is efficacious; by painting the surface of an abscess, which must be opened, a few minutes before introducing the knife, little or no pain will be felt.—*O. State Journal.*

Cohesive Gold.—Dr. Taft says truly: The terms soft and non-cohesive are carelessly used as interchangeable. Sometimes gold is quite soft, like butter or cheese, yet it will weld. All depends on the management of the gold in its preparation. Those who have worked gold know that there is a great variety of behavior in gold, as in any other metal. Variety may be given by the manner in which it is treated. Pure gold is always the same in quality, but temporary qualities are given to it by the method of treatment.

What is the best treatment for sensitive dentine at the neck of a tooth?

E. COWLES.

DENTINE A LIVING SUBSTANCE.

DR. C. F. W. FÖDECKER, NEW YORK.

We know that the basis-substance or matrix of the dentine is analogous to the matrix of bone,—glue-giving or cement, infiltrated with lime-salts. We learned from the researches of E. Neumann that the basis-substance is denser on the walls of the tubuli, and more resistive to the action of strong acids, which cause the appearance of a sheath around each tubule after the solution of the intermediate substance of the matrix between the tubuli. Analogous relations exist in bone-tissue, in which the basis-substance is decidedly denser on the walls of the lacunæ and Haversian canals.

With low powers we cannot see in the dentine anything but the tubuli, which I propose to term hereafter Dentinal Canaliculi. These canaliculi run in curved sigmoidal lines from the boundary of the pulp-cavity to the periphery of the dentine; they are directed obliquely upward in the crown, and assume a more horizontal direction in the region of the neck, while in the root they remain horizontal or sometimes turn downward to a varying extent. Besides the main sigmoidal curvature, each canaliculus exhibits a variable wavy course in its way through the dentine, and the curvatures are, as a rule, very marked on the outer periphery of the dentine.

The dentinal canaliculi reach the outer surface of the dentine only on the circumference, which is covered by enamel, while on the periphery coated by cementum, including also the neck, the canaliculi terminate before reaching the cementum, and are replaced by a fine granular basis-substance greatly varying in its width.

The distribution of the dentinal canaliculi is in most teeth uniform throughout the dentine, though I have met with specimens of dentine in which there were smaller or larger territories devoid of dentinal canaliculi; they looked as if arranged in bundles or groups within the basis-substance. This relation is especially visible on transverse sections of the dentine. An irregular arrangement of the dentinal canaliculi is more common in the roots than in the crowns.

Each canaliculus contains a dentinal fiber. These fibers, when viewed with a power of 500 on good chromic acid specimens, exhibit a pale-gray color, and run through the midst of the tubuli without ramification up to the outer surface of the dentine. The outlines of these fibers never are smooth, but always look denticulated or fringed. On specimens treated with chloride of gold, the fibers and their delicate offshoots show a distinct violet color, characteristic of living matter within protoplasmic formations, while the space between the fiber and wall of the canaliculus remains unstained, and the basis-substance between the tubuli only assumes a slight violet tinge.

Longitudinal sections of dentine, stained with carmine or chloride of gold, if examined with powers from 1000 to 1500 diameters (immersion lenses) exhibit the following :

The canaliculi of the dentine run in a variable wavy course through the basis-substance, and are, as a rule, bifurcated only on the periphery of the dentine, both toward enamel and cementum. Each canaliculus contains a central, slightly-beaded fiber, which on its whole periphery sends delicate thorn-like elongations through the light space between the central fiber and the wall of the canaliculus. The thorns are distinctly conical, their bases being attached to the dentinal fibers, and their points directed toward the basis-substance. The smallest thorns spring in an almost vertical direction from the dentinal fiber, while somewhat larger offshoots may run obliquely through the basis-substance, and directly unite neighboring fibers with each other in the vicinity of the enamel and cementum.

The basis-substance shows a distinct net-like structure. The light spaces surrounding the dentinal fibers send delicate elongations into the basis-substance, in which, through repeated branching, a light network is established, the meshes of which contain the decalcified glue-giving basis-substance. The finest offshoots of the dentinal fibers can be traced only into the mouths of the elongations of the canaliculi ; on the periphery or surface of the latter, owing to their great delicacy, the offshoots are lost to sight. Coarser offshoots of the dentinal fibers, at the localities mentioned before, traverse the basis-substance within its light net-work, at the same time uniting dentinal fibers directly, and sending slender conical offshoots into the light net-work of the basis-substance.

The dentinal fibers are either in direct connection with coarser offshoots of the protoplasmic bodies of the cementum, or the light network of the basis-substance of the dentine is in communication with that of the basis-substance of the cementum.

The latter condition prevails on the periphery of the neck of the tooth, where the basis-substance of the dentine is not pierced by larger offshoots of the dentinal fibers, but only by a delicate net-work, through which the connection between dentine and cementum is indirectly established.

Where the dentine is in contact with the pulp, the dentinal fibers directly communicate with the odontoblasts (John Tomes) in a growing tooth, and with the protoplasmic bodies of the pulp in a fully-developed condition, where no regular odontoblasts can be seen.

In cross-sections of dentine the dentinal canaliculi are visible in the shape of round or oblong holes ; the center of each is occupied by the dentinal fiber, which has the shape of a small roundish dot. Again

we see that the periphery of the dentinal canaliculus is sharply marked, and repeatedly interrupted by light offshoots leading into the light network which pierces the basis-substance between the canaliculi. The central fibers look very distinct and dark-violet in specimens stained with chloride of gold, and send slender, conical, radiated offshoots through the surrounding dentinal canaliculi, respectively toward the mouth of the light interruptions in their walls.

In directly transverse sections, one, two, sometimes even three such offshoots can be seen in a star-like arrangement. Each offshoot springs with a broad base from the central dentinal fiber, while its pointed end always is directed toward the perforation in the wall of the canaliculus, where, generally, it is lost to sight. Slightly oblique sections of the canaliculi exhibit both transverse and longitudinal projections of the dentinal fibers. In such an oblique section, we may succeed, by cautiously changing the focus, in seeing star-light radiated offshoots up to five in number, all rising from a single dentinal fiber.

Towards the boundary between dentine and enamel, and dentine and cementum, the dentinal canaliculi ramify, and according to their ramifications the dentinal fibers bifurcate, becoming thinner the nearer to the surface of the dentine. Both longitudinal and transverse sections of this part of the dentine show details with the main mass of the dentine, the only difference being that near the periphery of the dentine the fibers are more delicate and more closely packed.

In some teeth I have met on the periphery of the dentine of the crown with the so-called "Interglobular Spaces" which may be considered as remnants of the embryonic condition of the dentine. They represent lacunæ of greatly varying sizes, bounded by curved lines, the convexities of which are directed toward the central cavity. These spaces sometimes contain protoplasm,—that is to say, embryonal elements which have not been transformed into basis-substance and not calcified. The dentinal fibers enter the protoplasmic bodies, and each fiber is united with the net-work of the protoplasm by means of delicate thorn-like projections. At other times the basis-substance of the dentine is developed within the inter-globular spaces, but devoid of lime-salts. In this instance the dentinal fibers, without investment and without changing their course, pierce the basis-substance and send offshoots to this through the surrounding light spaces.

The dentine shows peculiar formations in general, though not constantly, as instanced when approaching the enamel and cementum.—*Cosmos.*

It is easy to cure the faults of others, at least we have sure specifics for them; but when we come to our own faults they are not so easily overcome.

TURGIDITY.

WILLIAM MATTHEWS.

Some years ago a white minister preached in a plain, direct style to a church of negroes in the South, whose "colored" pastor was greatly addicted to the use of high-flown language in his sermons. In the season of exhortation and prayer that followed, an old negro thanked the Lord for the various blessings of the Sabbath and the sanctuary, and especially, he added, "we thank Thee that to-day we have been fed from a *low crib*." Would it not be well for preachers generally to remember that many of Christ's flock are "little ones," whose necks are short, and that they may consequently starve, if their food, however nutritious, is placed in too lofty a crib?

But preachers are not the only anti-Saxons of our day; we may find them in nearly all classes of society,—persons who never tell us a man is asleep, but say he is "locked in slumber"; who deem it vulgar, and perhaps cruel, to say a criminal was hanged, but very elegant to say he was "launched into eternity." A person of their acquaintance never does so low a thing as to break his leg; he "fractures his limb." They never see a man fall; but sometimes see "an individual precipitated to the ground." Our Latin friends,—fortunate souls,—never have their feelings hurt, though it must be confessed their "sensibilities" are sometimes dreadfully "lacerated." Above the necessities of their poor fellow-creatures, they never do so vulgar a thing as to eat a meal; they always "partake of a repast." They never do such a commonplace thing as to take a walk; they "make a pedestrian excursion." A conjuror with them is a "prestidigitator"; a fortune-teller, a "vaticinator." As Pascal says, they mask all nature. There is with them no king, but an "august monarch"; no Berlin, but a "capital of a kingdom." Even our barbers are on stilts. They no longer sell tooth-powder and shaving-soap, like the old fogies, their fathers, but "ozdonto," and "dentifrice," and "rypophagon"; and they themselves, from the barber-ous persons they once were, have been transformed into "*artists* in hair." The medical faculty, too, have caught the spirit of the age. Who would suspect their "epistaxis" means simply bleeding at the nose, and "emollient cataplasm" only a poultice? Fancy one school-boy doubling up his fist at another, and telling him to look for epistaxis! Who would dream that "anhepseterion" (advertised in the London "Times") means only a saucepan, or "taxidermist" a bird-stuffer? Is it not remarkable that tradesmen have ceased "sending in" their "little bills," and now only "render their accounts"?

"There are people," says Landor, "who think they write and speak finely, merely because they have forgotten the language in which

their fathers and mothers used to talk to them." As in dress, and deportment, so in language, the dread of vulgarity, as Whately has suggested, constantly besetting those who are half conscious that they are in danger of it, drives them into the opposite extreme of affected finery. They act on the advice of Boileau, and, to avoid the undignified, according to them, it is only necessary not to call things by their right names. Hence the use of "residence" for house, "electric fluid" for lightning, "recently deceased" for lately dead, "encomium" for praise, "location" for place, "locate" for put, "lower limb" for leg, "sacred edifice" for church, "attired" for clad,—all which have so learned an air, are preferred to the simpler words for the same reason, apparently, that led Mr. Samuel Weller, when writing his famous valentine to Mary, to prefer "circumscribed" to "circumwented," as having a deeper meaning.

Such persons forget that glass will obstruct the light quite as much when beautifully painted as when discolored with dirt; and that a style studded with far-fetched epithets and high sounding phrases may be as dark as one abounding in colloquial vulgarisms.

"A turgid style,
Which gives to an inch the importance of a mile;
Uplifts the club of Hercules—for what?
To crush a butterfly, or brain a gnat;
Bids ocean labor with tremendous roar,
To heave a cockle-shell upon the shore;
Sets wheels on wheels in motion,—what a clatter!
To force up one poor nipperkin of water;
Alike in every theme his pompous art,
Heaven's awful thunder, or a rumbling cart."

The English people of to-day are quite as much addicted to the grandiose style as the Americans. Gough, in one of his lectures, speaks of a card which he saw in London, in which a man called himself "Illuminating Artist to Her Majesty," the fact being that he lighted the gas lamps near the palace. Mr. E. A. Freeman, the English historian, complained in a recent lecture that our language had few friends and many foes, its only friends being plowboys and a few scholars. The pleasant old "inns" of England, he said, had disappeared, their places being supplied by "hotels," or "establishments"; while the landlord had made way for the "lessee of the establishment." A gentleman going into a shop in Regent street to buy half-mourning goods was referred by the shopman to "the mitigated affliction department." The besetting sin of some of the ablest British writers of this century is their lack of simplicity of language. Sydney Smith said of Sir James Mackintosh, that if he were asked for a definition of "pepper," he would reply: "Pepper may philosophically be described as a dusty and highly pulverized seed of an oriental fruit; an article rather of condiment than diet, which, dispersed lightly over the surface

of food, with no other rule than the caprice of the consumer, communicates pleasure, rather than affords nutrition; and by adding a tropical flavor to the gross and succulent viands of the North, approximates the different regions of the earth, explains the objects of commerce, and justifies the industry of man."

Advertising.—Dr. Welch: Enclosed find an advertisement which is clipped from last week's issue of the *Hummelstown* (Dauphin Co., Pa.) *Sun*.

What do you think of it?" How do you think it looks for *truth*?" You can form an opinion without an acquaintance with the advertiser. Are we elevating the standard of dentistry by flashy advertisements? Is it more admissible in the dental profession than in any other? Imagine a lawyer advertising on the style of the enclosed clipping. But perhaps ours is no profession—simply a trade.

Linglestown, Pa.

E. B. SMITH.

THE WORLD'S BEST TEETH.

The steady advancement of Dr. J. B. Crist's business has necessitated him to add steam power in his laboratory, and with electricity combined, *places him at the head of his profession*. In the manufacture of teeth he can well say that none better can be had elsewhere in the *continents*, as he has the very best material made and understands how to handle it. In filling teeth *he cannot be excelled*, and a *single trial* will *prove* the assertion *conclusively*. In making engagements for work please notify him, by letter or otherwise, a day or two before coming, and he will be prepared to receive you. Do not neglect your teeth too long, but have them treated at once.

C. Thomas will find a corundum stone out of true, can be turned true again by using any moderately thick piece of iron having a square edge, say a stove shaker, heated nearly to redness. This will leave a glazed surface, which a little alcohol or a few minutes' use will wear off.

To have your hypodermic syringe *always* in working order, put between the two leather washers, on the piston, a disk of chamois skin a trifle larger than the bore of the cylinder of the hypodermic. However dry, this will *immediately* swell on drawing any liquid into it, and make your syringe work tight.

E. D. FULLER.

Peekskill, N. Y.

LIVING SUBSTANCE IN DENTINE, CEMENT AND ENAMEL.

BY C. F. W. FÖDECKER, D.D.S., M.D.S., NEW YORK.

(Part of paper read before the American Dental Association.)

No one, I think, will doubt that as long as a tooth is within the jaw and in connection with the living tissues of the body, it is alive. Morbid processes, especially caries, produce painful reactions in the tissues of the tooth, even before the pulp-cavity has been invaded and an inflammatory process established. It is a daily occurrence that the cutting of apparently healthy tissue, either enamel or dentine, is an unpleasant, nay, a painful manipulation for the patient, especially on the boundary between the enamel and dentine; the neck of the tooth is generally very sensitive.

These facts, besides alterations produced by foreign bodies, as a filling, brought in contact with dental tissues, show there must be living substance present within these tissues capable of conducting sensations to the nerves of the pulp, and reacting through an inflammatory process round foreign bodies, the so-called consolidation, analogous to eburnification in bone-tissue. Many good observers of the past were aware of the presence of living matter in the teeth, nay, some thought of the presence of nerves within these hard tissues. All, however, failed in demonstrating the living substance in its most intricate distribution, partly owing to the wrong method applied to the preparation of microscopical specimens, and partly to a want of knowledge of the arrangement of the substance in other tissues, especially in bone.

In 1873, Dr. C. Heitzmann first discovered the minute structure of protoplasm and other tissues of the animal body, mainly epithelium and connective tissue. This author describes the net-like structure of protoplasm thus: "The nucleolus is connected with the wall of the nucleus, and this again with the granules of the protoplasm, by very fine threads, which are to be regarded as the living substance of the protoplasm, while the fluid contained within these meshes of living matter does not possess the property of life." That these assertions are correct can easily be proved by close examination with a good immersion-lens magnifying at least 1000 linear. In micro-photographs this structure is plainly visible wherever a protoplasmic body is in correct focus. Several reliable German microscopists have accepted the described structure of protoplasm as a well-established fact. The structure is identical in all protoplasmic formations, in the simple amœbæ as well as in colorless blood-corpuscles of vertebrates and all protoplasmic bodies (the formerly so-called cells of the tissues) of any description. The author referred to discovered, in 1873, that there does not exist a tissue within the animal body built by isolated cells, as taught by Theodor Schwann. What was formerly thought to be a cell

(a vesicle filled with a fluid and a nucleus suspended therein) has been, since 1861, through the researches of the late Max Schultze, recognized as "a jelly-like mass—the so-called protoplasm." Since Dr. C. Heitzmann's observations, it is conceded that in all varieties of connective tissue the protoplasmic bodies being imbedded in a mucoid or a glue-giving basis-substance, at the same time are connected with each other by offshoots of living substance, which spring from the protoplasmic body of the tissue,—the formerly so-called cell,—and traverse the basis-substance in the shape of a net-work. The net-work of living substance present in the protoplasm is identical with the net-work in the basis-substance, the only difference being that the net-work in the latter is a little wider than in the former; and further on, that in the meshes of the protoplasm there is present a lifeless fluid, while the meshes of the basis-substance contain a mucous or glue-giving substance, originating from the chemically altered and solidified protoplasmic fluid. The history of development of connective tissue illustrates the origin of both the living matter and the lifeless basis-substance—at least from the morphological stand-point—in a satisfactory manner.

In the tissue termed "epithelial" there are protoplasmic bodies closely packed, so much so that the single bodies flatten each other, and each shows a variable polyhedral shape. The single epithelial bodies are separated from each other by a cloak of cement-substance, which gives the horny character to all epithelial formations. The author demonstrated that in all epithelial bodies still endowed with life (except the dry desquamating epithelia on the surface of the body, and of certain cavities of the same) the net-work of living matter is present within the protoplasm, and sends parallel offshoots through the cement-substance, by which all protoplasmic bodies of the epithelium are uninterruptedly connected. What Max Schultze, in 1864, described as thorns of the cement-substance, present in a few epithelial formations only, must be considered as products of living substance piercing the cement-substance in all epithelial and endothelial formations, though often brought to view only by the application of certain reagents.

It is evident the old cell doctrine is not tenable. The animal body is by no means built like a chimney or a dwelling, the bricks being represented by the cells. The organism, according to the new doctrine, for which the term "bioplasson doctrine" has been proposed, must be considered as an engine in which all constituent elements are in close contact respectively in an uninterrupted series with each other, in order to enable the whole to perform its duty. A screw, as such, may be regarded as an individual, but if put in the right place its individuality is lost; it works further on for the benefit

of the whole. A single screw being loose may produce great disturbance in the action of the machine, and in an analogous way morbid action may separate protoplasmic bodies, and thus produce a great deal of disturbance, either locally or generally, according to the dignity of the diseased tissue.—*Cosmos*.

WONDERFUL RESTORATION OF AN AFFLICTED MINISTER.

DR. HIRAM STEARS.

The Rev. J. D. Crum, a member of the Southern Illinois Conference of the Methodist Episcopal Church, now laboring on the Pleasant Grove Circuit, in the bounds of the Vandalia District, had been afflicted with something like sore throat for ten years before he had to give up the active work of the ministry some four years ago. He settled on a little farm five or six miles from this city. His health continued to decline for two years, and his neighbors all said he must die.

As a last effort to regain his health, he left his home for Cincinnati to consult the most experienced physicians there. Several were consulted but to no purpose. He grew worse for three weeks, when his brother was summoned from Circleville, Ohio, to remove him if possible, or to see him die. He succeeded in transferring him to his home in this city, and Dr. W. Griswold was called to visit him. The disease up to this time had deceived many of the best practitioners in the country.

Some thought it was the result of Diphtheria, others that it was a singular and protracted case of Tonsillitis, while others again thought it an aggravated case of Catarrh. The patient complained of a sharp cutting sensation above the palate, as well as general inflammation of all the adjacent parts. Dr. Griswold conceived that Necrosis of the Ethmoid bone might be followed by an exfoliation which would produce in the flesh, the sharp pains complained of.

He therefore made an examination with an instrument and found that the process of exfoliation of the diseased bones in that region was actually going on. One or two pieces of bone making their way through the flesh could be distinctly felt. The Doctor applied diluted Carbolic acid to the affected parts and gave the patient tonics to brace up his system. In eleven weeks Mr. Crum was fully restored to health, but with a loss of several pieces of bone and of his voice. Among the bones were also the palatal which from their proximity to the affected parts above, and contact with the matter from their protracted supuration, had become similarly affected. In coming away, these bones had cut two clefts through the fleshy parts of the roof of the palate. The one in front is about three-quarters of an inch wide. The other in the rear is perhaps three-eighths of an inch in diameter.

These apertures through the roof of the mouth so destroyed the voice, that Mr. Crum had often in conversation to resort to pencil and paper to make himself understood. In this deplorable situation he suggested to us his intention to apply to a dentist at a distance, with whom he was favorably acquainted to secure a set of teeth, which he needed, with a plate running sufficiently back to cover these clefts, he hoping at least for a partial restoration of his voice.

We begged the privilege of introducing him to Dr. W. B. Pike, of this city, feeling satisfied from the Doctor's reading and mechanical genius that he would succeed if any dentist could. When he applied to him, he answered very discouragingly. But he examined the patient at his earliest opportunity, and went to work. How to get up the proper amount of suction with these openings in the roof of the mouth was the difficulty. To overcome this seemingly insuperable difficulty, a good sized and well fitted plate was inserted, sufficiently large to cover both openings completely, but not to interfere too much with the flexible portion of the palate which still remained. The gums of the upper teeth were well corrugated on the outside to increase the suction in that direction. The teeth were adjusted with great care and precision. And to the agreeable surprise of Dr. Pike himself, and of all the medical faculty in the city, his experiment was successful. The moment the teeth and plate were inserted in the mouth the patient's voice was completely restored. Mr. Crum converses and preaches with as much ease and with as clear and distinct a voice as he ever did. He has resumed the active work of the ministry, full of zeal, and abounding in gratitude to Dr. Pike, who by the singular triumph in the practice of dentistry has won a place and a name among his compeers second to none in this country.—*Dental Register*.

[This brother is still doing good service as a preacher.—Ed. ITEMS.]

One objection to the extraction of the first permanent molars, is to be found in the position in which it leaves the remaining molars, in their relation to artificial teeth which may eventually be worn on the upper jaw.

These remaining teeth are so often pitched forward, at an angle which makes an inclined plane, as to render them useless, because if they meet the artificial teeth, the constant tendency is to crowd the plate forward and so displace it.

Many a set is thus rendered very troublesome till the posterior teeth are ground so they no longer meet.

L. P. HASKELL.

If we expect to be happy we must be busy.

PERSONAL RECOLLECTIONS OF A DENTIST OF THE EARLY DAYS.

DR. L. W. BRISTOL, LOCKPORT, N. Y.

Read before a Union Meeting of the Seventh and Eighth District Dental Societies of the State of New York, held in Buffalo, October 27 and 28, 1885.

PUBLISHED AT THE REQUEST OF THE SOCIETIES.

About the year 1837 or 1838, there was a dentist in practice in the City of Buffalo, by the name of Bigelow. He used to sally out into the neighboring towns and hamlets, and once dropped down on the village of Lockport. His fees equaled the high charges of some of our eastern practitioners now. He spent two hours cleaning and filling the teeth of the wife of a celebrated lawyer in Lockport, Mr. C——. His charges were fifty dollars. Mr. C—— thought that was a most extravagant price, and said so. Bigelow replied: "We professional men must be liberally paid for our services," and would make no discount. The lawyer paid the bill and took a receipt. After Bigelow had left the village, the lawyer happened to remember that, in a business transaction with some parties in Buffalo, he had taken a mortgage on some real estate there, given by a Dr. Bigelow. He overhauled his mortgages and found this was his man, and that the mortgage was long past due. He set about an immediate foreclosure, in the most expensive way known to the legal profession. Bigelow hurried down and expostulated. He thought the fee demanded was extravagant and extortionate, but Lawyer C—— replied: "We professional men must be very liberally paid for our services."

Bigelow once did some work for a lady who said that her husband was a great showman; he thought his chance had come to make a strike. He improved the opportunity and charged a big price, which was paid, and a receipt taken. In a short time the man opened a museum, and in advertising his curiosities, after enumerating a lot of rare things, he said: "The most rare and extravagant thing in the whole collection is a 'Dentist's bill receipted.' " And there, sure enough, in a big tin frame, suspended by a chain to a post, in the most conspicuous place in the museum, was Bigelow's bill for dental services for wife. It was a wet blanket for Bigelow, and annoyed him excessively. He finally got a friend to go and buy the thing, paying about the same for it that he had charged for dental services.

About 1844, the late Dr. O. W. May had made a gold plate with six teeth, for a man by the name of Easton. The gums had settled away, the clasps had broken and the plate was loose, and it dropped down when in conversation. Easton had become offended with May, and took a great delight in showing the work. He would say, "There is a specimen of Dr. May's work," and then would wobble them up and down. He would not let May touch them, and they were really a very bad advertisement. May said to me one day,

“Doctor, I will give you twenty dollars if you will get those teeth and make him another set. I agreed to try. A few days after I happened to meet the old gentleman, and he showed me how the teeth wobbled. I said to him, “They are not much comfort to you?” “No,” he replied; I stick to them to annoy May, but I am tired of the fun. What will you charge to make me a set that will fit?” I agreed to make them for the old plate and twenty dollars. He came to my office. I took an impression and made him a set that proved satisfactory, and he paid the bill. In a couple of weeks I met Dr. May, who said, “I see you have got the old teeth out of Easton’s head; here is your twenty dollars.” I took the money and said to him, “Here is your old gold plate and teeth; I guess all parties are perfectly satisfied; at least I am.” I think that was the only time I ever received a double fee for making a set of teeth.

Dentists in those early days used to visit the surrounding towns and villages a great deal more than they do now. I remember visiting my old stamping ground, Lewiston, and was told that another dentist from an eastern city had come there the day before, had taken rooms and was going to open an office. I got up early the next morning and took a stroll down to the Niagara River, and as I was returning I saw a man tacking a card on Bartlet’s store door. Just then a well-known citizen came along, saw the card, shook the door, and yelled out, “Get up, Bartlet; the sheriff is advertising your premises.” The new dentist, Dr. M., replied, “That is not a sheriff’s notice; it is a dentist’s advertisement.” At that the man seized and shook the door more violently than before, crying out at the top of his voice, “Get up, get up, Bartlet, the dentist is advertising your whole real estate.” Dr. M. stole away, looking sheepish. In the afternoon I called at his rooms and found him packing up. He said that was no place for him; if he stuck up a card they said he was advertising their property at sheriff’s sale. By the way, that dentist has since made his mark in the profession, and is a splendid operator, and an ornament to the profession. He does not as easily get discouraged at a joke now.

There is not as much ignorance and superstition among the mass of people, relative to teeth or the practice of medicine, as there was forty or fifty years ago. It was not an uncommon request then for our patients to ask us not to touch their teeth with our fingers after extraction, but to roll them up in paper for them. I sometimes had the curiosity to ask what was to be done with them, and was told they were going to bore a hole in a sweet apple tree, put the tooth in and plug it up. Others were going to take the tooth and go out to the woods, turn their backs, take three steps and throw the tooth back over their heads and say, “Good-bye to toothache.” Others were

going to burn them and scatter the ashes to the four quarters of the earth, and in that way get rid of the toothache, but I judge these were of little effect, for I have extracted teeth subsequently for the same persons.

The old superstitions have not entirely died out, and are practiced yet, as witness the carrying of a small potato or a horse-chestnut in the pocket to ward off the rheumatism, or cutting the finger nails only on Friday to prevent headache, or avoiding the beginning of a journey, or the building of a house, or the commencement of a set of teeth on Friday.

We used to have a great deal of trouble with our porcelain blocks of teeth; they were sure to break, if dropped while carelessly handled. I remember a block of upper teeth put in for the Rev. B——, in one of the neighboring villages. He was in the midst of a morning sermon, and was describing Saul on the road to Damascus. In quoting the passage, "Saul, Saul, why persecutest thou me," he leaned over the pulpit, when his teeth dropped out and fell on the table below and broke in three pieces. He looked down at the wreck and exclaimed, "My friendth, you thee the fixth I'm in—Amen."

He went home and wrote me of his trouble, desiring me to come to him immediately. I did so the next day, and made him a new set. He was always lecturing me for not being a member of a church, and while at dinner opened on me again. I remarked that it came with ill grace for him to reprove me when he was guilty of transacting and writing business letters on the Sabbath. He denied the charge, and I produced his letter to me, dated on Sunday. His wife remarked, "Now, Father, you had better dry up."

The Rev. Glezen Fillmore, than whom no purer, better man lived, was pastor of a Methodist church then located on Walnut Street. He wore a set of teeth on a silver plate, made by Dr. Hains, of Rochester. The plate had cracked between the central incisors and had been soldered, but was giving out again. There was a revival, and at the morning service the church was well filled. I was in attendance, as usual. He was saying, "The spider's most attenuated web is cable compared to the thread on which hangs the life of poor mortality." Before he got half through the sentence the crack in his plate opened, the solder came off and the words whistled out as if he had a toy tin whistle in his mouth. Everybody was convulsed with laughter. He stopped and sucked away at them, but there was no improvement. "We will turn this morning service into a prayer meeting," said he; "Bro. P——, will you lead in prayer?" He retired to a back room, and directly one of the members tapped me on the shoulder, and said that Mr. Fillmore wanted to see me. When I arrived in his presence

he declared that I must accompany him to my office and mend the teeth. I went with him, took the teeth in hand, and he took my bible—I had one in my office, as all well regulated dentists should—and studied out another sermon. The teeth were mended and in his mouth just as the bells were ringing for evening service. “Now come over and I will give you a first-rate sermon,” said he. I did so, and was well pleased that I had done a creditable job in dentistry, and I had no idea that so good a sermon could emanate from my office. Some members of his congregation afterwards suggested that he had better visit my office every Sabbath morning.

The most remarkable instance of wearing a dilapidated set of teeth I ever knew, was that of a maiden lady, Miss F——. Dr. Thomas Harrison had made her an upper and lower set on porcelain. By some means both plates were broken in the center. When I saw her she was wearing the teeth. She would take all four pieces in her hand, put them in her mouth, and with her tongue adjust them to their proper place in less time than I can describe it. It was amusing to hear her talk, as the blocks would rattle and knock about. The ends were worn smooth and rounded off. When she died the teeth were placed in her mouth and buried with her. Don’t let any one desecrate her grave in hopes of securing a valuable dental structure.

A few years since, I made a partial denture for a Mrs. L——, a German lady. Every little while she would bring them to me with the left incisor broken. I could not account for it, as she had no antagonizing teeth on the under jaw. I said, “Mrs. L——, I cannot understand this. How do you break that tooth so often?” She hesitated a little, but finally said, “Well, Susan wears them when she goes to a party or dance, and she breaks that tooth off.” This explained the mystery. I had made a partnership set of teeth, to be worn by the mother and broken by the daughter. This was the only case I ever knew in which a partial set of teeth could be used by two persons. I finally made a set for the daughter, and had no further trouble with repairing the mother’s teeth.—*Independent Practitioner*.

Extracting to make room.—DR. WELCH; Dr. Chase’s article on “Room—Boys’ Room,” I think is pernicious doctor. I was at one time of the Doctor’s opinion, but have learned by sad experience that by extracting, in nine cases out of ten, I get less room, besides a narrow, contracted jaw for life, which is ruinous to both speaker or singer, to say nothing of comeliness and beauty.

A very simple apparatus, that will cost from ten to twenty-five dollars, which will spread the jaw, bicuspedes and molars from one-half to three-fourths of an inch across the mouth, with very little incon-

venience to patients, for one year, will enlarge the circle, letting the front teeth back, if too far out, and make plenty of room.

I have casts of mouths that I have regulated in the past year under most unfavorable circumstances, delicate health, and unable to see patients once in two months, which I have regulated. I am against extracting to make room. For my oldest daughter, I took out the six-year molars when she was between sixteen and seventeen years of age, but the teeth are more crowded than ever. The teeth have closed together, so that you can only get silk between them. I repent of this, and hope some one will take warning by it.

Chicago.

J. S. MARSH.

The lacunæ of bone-tissue are the spaces in the glue-giving basis-substance, each containing a protoplasmic body, with a distinctly visible net-like arrangement, to be regarded as the living substance of the protoplasm. The basis-substance of bone is pierced by canals called canaliculi, which communicate with each other as well as with the lacunæ. I find a much more delicate net-work of canaliculi than observers have hitherto thought present.

The protoplasmic bodies, which do not quite fill the lacunæ, send offshoots of the living matter into the canaliculi, though these offshoots are plainly visible only in the coarser canaliculi. The presence of living substance in the finest canaliculi we have to assume, owing to the fact that from the whole periphery of the protoplasmic body within the lacuna there are projecting delicate conical offshoots, which spring with their basis from the protoplasmic body, traverse the light seam between this body and the wall of the lacuna, and are directed with their delicate ends toward the final canaliculi, where they are lost to sight.—*C. F. W. Bodecker.*

Bad Breath. Dr. J. Calder, of Oregon, thinks the use of charcoal an unsafe and an uncertain remedy for bad breath. He thinks it unsafe because it is liable to injure the mucous coat of the stomach and other organs; and uncertain, because a bad breath may come from other causes than an abnormal condition of the stomach. He says: "We have chronic catarrh, ozena, or stink nose. This disease may take on a suppurative character, destroying the periosteum and causing caries. It may extend to the highmorian cavities and surrounding cavities."

Healthy dentition is not necessarily dangerous or even painful. Let the whole body of the child be kept in a state of health and dentition will usually have but a slightly irritating effect on the system.

QUACKS.

I am glad to see articles denouncing those advertising impostors, who have recourse to printers' ink, as the ten cent side show has to the enchanting and intensely thrilling strains, produced by the greasy organ-grinder, for the purpose of attracting a crowd, many of whom are induced to go in, because it cost so little; believing to be true the showman's stereotyped and glowing assertion, that his are the most wonderful, and indeed the only curiosities of the kind ever placed on exhibition. They come out victims, feeling that the showman has the best of the transaction, for he possesses their dimes.

This class of persons who call themselves dentists, and resort to advertising a list of figures, as prices for which they will perform first-class operations, are men of much the same stamp, except that these are the greater miscreants, because they swindle their victims and do them constitutional injuries, which may not be discovered. It is patronizing and encouraging this class of dentists which gives people so poor an opinion of dental operations.

Simplicity in Language.—The effort of the Spaniards to support their dignity by long and sounding titles is repeated daily, in a slightly different form, by many democratic Americans. Writers and speakers are constantly striving to compensate for poverty of thought by a multitude of words. Magniloquent terms, sounding sentences, unexpected and startling phrases, are dropped from pen and tongue, as gaudy and high-colored goods are displayed in shop windows, to attract attention. "Ruskin," says an intelligent writer, "long ago cried out against stuccoed lies which rear their unblushing fronts on so many street corners, shaming our civilization, and exerting their whole influence to make us false and pretentious. Mrs. Stowe and others have warned us against the silken lies that, frizzled, flounced, padded, compressed, lily-whitened and rouged, flit about our drawing-rooms by gaslight, making us familiar with sham and shoddy, and luring us away from real and modest worth. Let there be added to these complaints the strongest denunciation of the kindred literary lies which hum about our ears and glitter before our eyes, which corrupt the language, and wrong every man and woman who speaks it by robbing it of some portion of its beauty and power."—*William Matthews*.

Men do not seem to know that, however bright and strong they frame the golden gallery of their ambition, the only chance of their getting up to it must be in the strength of the stairway which they build. They are always building steps of straw to climb heights of gold.

SHALL HE EXTRACT?

DEAR DOCTOR :—Will you please give me some advice on the following case: Two days ago a lady patient brought her little daughter (aged two years) to have me examine her teeth. She says that about two weeks ago, while the little one was playing, she fell and struck her mouth against a glass goblet and knocked out one of her front teeth. On examination, I found that the tooth had not been knocked out at all, but that it (the central incisor) had been driven up into the gum, completely out of sight, and the gum healed over very nicely. There is a small swelling just over the tooth, slightly above the margin of the gum and where the tooth formerly was, which, on pressure, gave slight pain. This swelling, I think, is caused by the crown of the tooth, and I have every reason to believe that the tooth will make its appearance at this point. Now, what I want to know is this: should it not make its appearance, had I not better remove the tooth for fear of injury to the alveoli by absorption, which I think will follow in case of fracture, which surely must be present to some extent; or, would the contraction after extraction be worse than absorption, in case there is any, if the tooth is allowed to remain where it is at present (out of sight)? She is only two years old, and of course it will be some years before the permanent teeth will appear. I have never seen or heard of any such instance, hence my appeal to you for advice, thinking, perhaps, you may have had similar cases in your practice, and knowing your general knowledge of dentistry superior to mine. By replying to this at your earliest convenience I will be greatly obliged.

Some three years ago a young man called at my office, and I removed an under bicuspid, which had been driven down below the gum by a blow from a piece of iron. There was no trouble whatever after I extracted the tooth, but this was a permanent tooth, and the patient about eighteen or twenty years old.

Waynesboro, Pa.

PHILIP R. WELCH.

[I should extract this tooth. What say others?]

Ed. Items :—I noticed in *ITEMS* for March how to toughen wax for base plates. For several years I have used modeling composition, with tin foil next the plaster model. When trying in a case of this temporary base, with teeth ground up, it remains much firmer than wax, or wax and paraffine.

E. S. FAWCETT, D. D. S.

To Toughen Wax stir in the melted wax a small quantity of venice turpentine. To make a plaster impression when there are teeth in the mouth and the impression is hard to remove, moisten the mouth with soap suds.

L. S. KEAGLE.

SHE HAD GOSPEL TEETH.

The following appeared recently in a Salt Lake City (Utah) newspaper. It has been sent us by an ITEMS subscriber in whose office the incident actually occurred :

This morning one of the faithful sisters came from the suburbs to have some dental work done. She went to a First South street office, formerly occupied by Dr. —, a firm Mormon. She found another dentist installed in the office, and was informed that Dr. — was out of the city. Inquiry was made and information given as to certain kinds of dental work. With a blush she asked, 'Are you a Mormon?'

" 'I thank the gods, no,' exclaimed the dentist.

" 'Well, excuse me, then,' said the faithful female, " 'I guess I will not have this work done now,' and with apologies and bows most profuse she backed out of the office, and went in search of a dentist who could pull and fill teeth according to the faith and principles of Mormonism.

J. R. THOMPSON, Dentist.

Salt Lake, Utah.

White Decay.—Dr. J. W. Clowes says: I used to hear of the denuding process, but no one seemed to know much about it. When I saw the old-time black decay I knew what it meant and how to treat it, but now we have this terrible white decay, and we stand aghast! It is no riddle, but is in great part produced by tonics prescribed by physicians. Excessive use of alkalies act on the teeth and cause them to melt away. I wish some impression could be made on physicians that would make them desist from their use. Such methods baffle the efforts of dentists to save the teeth. In old times this was not so, and it should not be so now. I utter an earnest protest against giving medicines that destroy the teeth. The excuse for giving such remedies is that it is their duty to save life, even though the teeth are sacrificed. I do not believe in giving medicines that destroy one part to cure another. I have carefully cultivated good teeth only to have them riddled by erosion. But it is not a "mystery." The muriate of iron dissolves out the tooth structure, and the brush makes the grooves.

The Ohio College of Dental Surgery is forty years old, only six years older than the oldest in the world—the Baltimore.

During its last session there were sixty matriculates, and the degree of D. D. S. was conferred on seventeen graduates, as follow:

Ohio,—M. H. Guthridge, R. E. Wyatt, W. M. Hart, H. M. Howard, E. G. Logan, L. B. Moore, J. Q. Neptune, F. T. Struckman, E. B. Swift; Minnesota,—H. L. Bryant, J. C. Corcoran; Indiana,—W. B. Gordon, C. B. Meckel; Illinois,—C. M. Doss; Kansas,—C. E. Esterly; New York,—C. F. Materne; Germany,—A. F. Muenther.

MEETINGS OF STATE DENTAL SOCIETIES.

California, San Francisco, Tuesday, July 20.
 Connecticut, Hartford, Tuesday, May 18.
 Georgia, Savannah, Tuesday, May 11.
 Illinois, Quincy, Tuesday, May 11.
 Indiana, Indianapolis, Tuesday, June 29.
 Iowa, Iowa City, Tuesday, May 4.
 Kentucky, Louisville, Tuesday, June 1.
 Kansas, Topeka, Tuesday, May 4.
 Mad River Valley, Dayton, Tuesday, May 18.
 Minnesota, Winona, Wednesday, July 26.
 Missouri, Sweet Springs, Tuesday, July 6.
 Nebraska, Beatrice, Tuesday, May 19.
 New Jersey, Long Branch, Wednesday, July 20.
 North Carolina, Raleigh, Tuesday, June 1.
 Pennsylvania, Cresson Springs, Tuesday, July 27.
 South Carolina, Cheraw, Tuesday, June 1.
 Southern Dental, Nashville, Tuesday, July 27.
 Texas, Austin, Tuesday, May 4.
 New York, Albany, Wednesday, May 12.
 Wisconsin, Milwaukee, Tuesday,

Sponge Grafting.—To prepare sponge for this purpose secure the finest kind you can obtain, clean it of all sand by beating, rinse it well in distilled water, put it in a ten per cent. solution of hydrochloric acid for several days. Wash it again and again in water, then put it in sulph. ether containing 20 per cent iodoform for twenty-four to forty-eight hours, keep the bottle well corked. At the expiration of that time remove the cork, let the ether evaporate, and it is ready for use. Another method is to substitute castor oil containing 10 per cent carbolic acid. This answers well enough for dressing wounds. I prefer the first for grafting. Graft only on healthy granulating wounds, and use very thin transversely cut pieces. After the grafting is done do not disturb it, let it remain. Do not think of grafting sponge on unhealthy, suppurating wounds, you will be sure to fail. In such cases you may use the sponge dressing.—*Edward Borck, M. D.*

The Southern California Practitioner is a new medical monthly published in Los Angeles, Cal., Dr. J. Widney, Editor. It has some new features which makes it specially valuable to the Pacific coast.

The Dentists of Chicago are a live set of fellows, and what is to their advantage, the best of them do not shrink from responsibilities, as is the case in many localities. The officers of their local societies represent the best skill and intelligence of the city.

For Our Patients.

CHILDREN NOT TO BE DECEIVED.

DR. W. W. ALLPORT, CHICAGO.

It is highly important that when children are taken to the dentist, they should be treated in a manner not only free from all deception, but so as to give them the assurance that whatever may be done will be for their good. They should be treated kindly and dealt with honestly, and their confidence should never be shaken by deception on the part of their parents or the dentist.

While we know much of the suffering attending dental operations is *imaginary*, we also know that living tissues cannot be cut or teeth extracted, without producing some pain; and for parents or dentists to tell children anything to the contrary, is an untruth. Yet, it is no uncommon thing for parents to induce their children to go to the dentist to have dental operations performed, and for dentists to get them to submit, by telling them that it will not hurt.

This deception is wrong in principle, and is bad in policy. It is precisely the way to destroy a child's confidence both in the parent and the dentist; for, suppose the confiding little patient does believe these earnest assurances that "it will not hurt a single bit to have the ugly old tooth taken out," or some other operation performed, and is thus induced to go to a dentist to find it *does hurt*; what is the effect produced on the child? It feels it has been deceived—imposed on. Its once unsuspecting confidence has been shaken. There is created a feeling of distrust; it may be, of positive dislike toward the dentist. Often it causes a feeling of dread and even life-long horror at the thought of all dentists and dental operations. In a large practice, extending over a period of thirty-five years, during which we have had to do with thousands of children, we have never known any good to result from such deception. Who can question that such fraud has a deleterious influence on the minds of children?

Such deception has often occurred; we could give many instances, but one will suffice. Several years ago, a child about four years of age was taken to a dentist for the purpose (as it was told) of having a single tooth extracted, with the assurance on the part of the parent that "it would not hurt;" but when there, and the mouth once open, he not only *did hurt* in taking that tooth out, but he took out two others that hurt equally as bad. This created such a feeling of repugnance and terror, that the child could not again for many years be induced to go near any one whom she knew to be a dentist, or even to pass by a dentist's office.

When it became necessary to have her teeth examined again, no persuasion on the part of the parent could avail to satisfy the little one that any other dentist, if he should get her mouth open, would not take out all the remaining teeth. It was not till after a long effort, at the request of her mother, that we, in the character of a friend, succeeded in gaining her confidence so that she allowed us to operate for her without the fear of being deceived. This was done by telling her the plain truth in a kind, frank, and encouraging manner, and she now submits to having whatever done to her teeth we think desirable, cheerfully, and with ordinary patience and fortitude.

All such deceptions are unnecessary. There is a much better way and a much safer policy. It is, if you talk with them about it, to tell the truth, at once, kindly and faithfully, but not exaggeratingly. Establish their confidence in the dentist,—in his truthfulness and in his kindness. Tell them that though the drawing of a tooth, or any dental operation, may hurt, yet it is necessary and for their good. Make them to understand that the dentist will perform it expeditiously and with the least possible pain. Appeal to their fortitude—their heroism. Tell them they must bear it like young soldiers or philosophers, and not shrink from a little necessary pain. What ingenuous boy or girl would not love you and confide in the dentist all the more, if, instead of deceiving them, you would tell them the whole truth—appeal to their sense of honor and duty, and make them feel that you expect them not to care for a little pain, which will soon be over, even if it does hurt.

Try this method with children, and see if motives drawn from their *manly pride* or their *lady-like character* will not go farther than the usual subterfuges of deception and sugar plums.

We frequently have parents bringing their children to us with aching teeth to have them extracted. Sometimes they are the first permanent molars, with long and firm roots. At other times, they are the temporary teeth before the fangs have been absorbed, which if extracted, must produce pain: it cannot be otherwise, and the parents know it; yet, with a nod and a sly wink at us, they will say, "Come now, leave it out; the doctor won't hurt you." To such remarks our reply now is, "Such teeth cannot be taken out without hurting, and if the child is to be deceived, we prefer not to be a party to the deception."

In many teeth, the pain of extraction will be *very slight*; so much so, that it is not necessary to say much to the child about it. There is little pain when the roots of the temporary teeth have been absorbed by the coming forward of the permanent teeth, so that those to be extracted are very loose and but slightly attached to the gums. Such teeth are frequently taken out with the fingers while talking with the child, and perhaps making some laughing remark calculated to please

its childish fancy. Then the taking out of the tooth will be looked on as a good joke, and with surprise and pleasure the child will exclaim: "Why, mamma, the doctor took out my tooth and it didn't hurt a bit." Such instances, however, should not be confounded with those first mentioned.

There is another consideration which should induce parents to avoid everything like deception. It is one which applies as forcibly to the proper management of children when we would induce them to take medicine or perform any other unpleasant duty, as to the way of dealing with them in dental operations. It is, that every victory thus gained over their childish fear or reluctance to endure pain, or suffer discomfort, is a real victory for life. Such victories, even in little things, give force of character to the child, and help to educate it for the real duties of life, which is one great battle made up of victories or defeats. And why should not these occasions be made instrumental in teaching children, even young children, instead of deceit, impatience, self-indulgence, and cowardice, the principles and virtues of truthfulness, patience, self-denial, and courage—that they may be the better prepared to face difficulties, and go through the world with comfort, usefulness, and honor?—*People's Dental Journal*.

WHAT A DENTIST SHOULD BE.

Thoroughly qualified by education and experience.

Neat and tidy in his habits; discreet and affable in his discourse.

Humane in his manipulations and faithful to every trust confided to him.

Truthful in his declarations; charitable in his criticism.

Slow to anger, patient under provocation, remembering that a "kind word turneth away wrath."

Chaste in his thoughts, moral in his actions.

A friend to the afflicted and a comfort to the sufferer.

Of temperate habits and unclouded mind.

Honest in his charges; frank in his dealings.

A gentleman in all that the word implies.—*Health and Home*.

"It Won't Pay." If the foot or the hand was in a diseased condition would it look reasonable for the owner to say "It won't pay to have it restored to health?" No; such a person would be called a lunatic. But, practically, is not this what many say of their teeth? On what basis of value do they say it will not pay? How much would they take for their teeth, if one not having teeth could have them successfully transferred to his mouth? They would want a fortune for them, and yet these same people say it won't pay to have them filled when decayed?

THE CARE OF FILLINGS.

TO MY PATIENTS.

Many, if not the majority of those who value their teeth, and mean to take the proper steps for their preservation, suppose, when they have been to the dentist and had their teeth put in order, their work is done till the time comes round for the periodical examination, and that the responsibility of any future failure is entirely with the dentist. This is a mistake. When the teeth have been properly filled and in healthy condition, then comes the responsibility on the patient of keeping them so. But how is this to be done? Well, let us go back a little and inquire into the "rationale" of the decay of the teeth, and the object to be accomplished by filling them. First, the decay of the tooth is caused by the action of some acid on the limy portion of it; almost any acid has some effect on their structure, though different acids act with different degrees of intensity, and it is proper to say here, that lemon juice and tartaric acid which are so frequently used, when taken in full strength are among the most destructive agents to the teeth of any that can be taken into the mouth, except those which actually injure the lips and tongue. But to return to the subject: this contact of the acid with the tooth gradually decomposes it, and at last we find a cavity as the result. What now? Well, it must be filled. How? First, by removing all of this decayed substance till we come to that part of the tooth that is sound and unaffected by the decay; next, by shaping the cavity so as to retain the filling; then, by packing in, and as nearly solid as may be, the gold or other material for filling; and lastly, by filing this filling down perfectly level with the edges of the cavity, and polishing it. What have we then? Simply an indestructible substance, or nearly so, replacing the decayed portion of the tooth; protecting the spot it covers, and nothing more. But, it is asked, if this is true, will not the tooth go on to decay again? Certainly it will, if the same causes are still allowed to act on it which originally produced the decay.

Now it scarcely need be said that if the teeth could be kept clean, and free from contact with all extraneous matters, neither acids nor any other substances would have opportunity to act on them, as there would be none in the mouth; hence it follows, that the nearer the teeth are kept to cleanliness, the greater will be their freedom from decay, and though we must eat, and must, from various causes, have that which is deleterious to the teeth, often in the mouth; still, by taking pains to thoroughly cleanse the teeth every time anything injurious is taken into the mouth, we go far toward obtaining immunity from the decay of these organs. Thus it is seen how we may, in a measure, prevent "the continued action of the same causes which

originally produced the decay." We see the responsibility of the patient in keeping the teeth clean which he has had filled; for let the dentist's work be ever so well done, if the patient fails in his duty, the operations will as surely fail, in time, as that decay goes on in the mouth.—*Allport's Dental Journal*.

That the two kingdoms are closely allied is demonstrated by even the frost crystals on our windows, especially if allowed to remain from day to day till matured. They will be seen to represent every variety of vegetable life known to botanists. And the petals of flowers, if properly magnified, show the work of magneto-electricity in the arrangement and positions of the primary crystals, for crystals they are.

THERE IS ROOM AT THE FRONT.

There is plenty of room at the front;
 Hurry up, then, and take it!
 Stout hearts faithfully bearing the blunt
 Will invariably make it.

Why be jostled about in the crowd?
 Just get front of the rabble!—
 Away front, where you've room and are proud
 To be out of their babble.

Show them courage and patience and skill,—
 Pass them! Give no heed to them,—
 Only master the problem, *I will!*
 And you'll crowd your way through them.

When once there you have pleasures and gold,
 All men bow to the leaders;
 Men of faith who have brawn and are bold,
 Will have plenty of feeders.

But, my friend, if you think you can leap
 At one bound to distinction,
 You're mistaken, the road is too steep;
 'Tis no work of mere fiction.

And no *pretence* will answer the call;
 Men of shams are not wanted;
 Only merit is safe from a fall,—
 Sterling worth that's undaunted.

T. B. W.

Editorial.

DENTISTRY FOR CHILDREN.

Did you ever realize that half our dental work was done for children under twenty years of age? Perhaps it is still more suggestive that half of this work—or rather half that would be needed—*should* be done for them under the age of ten.

With respect to their health and healthy teeth, we are sadly neglecting children. Parents are neglecting them; physicians and public teachers and the public generally are neglecting them. The attention now given to their teeth is like the attention many parents give to their children's morals. In their tenderer years they are neglected; and, as they gradually become wayward, though they may be somewhat checked, and flagrant evils are sought to be overcome, radical discipline is postponed: "Poor things, we must not be too strict with them; they will see enough of the stern side of life by and by." Thus evil habits are formed and the proclivities to vice get rapid headway before the parent wakes to the necessity for thorough training.

Dental work required for children under ten years of age, is not the same as that generally called for after ten years of neglect. But it is quite as important, and parents should be taught that it should be as well done and as well paid for.

Let us consider this subject a little more in detail:

1st. The time must come when we as dentists shall feel largely responsible for the original character of children's teeth. We are now predominantly mere work-men in the art of dentistry, and so subordinated professors in its science, that we feel little responsibility for instructing our patients, and perhaps we should be little able to give instruction, were it asked. We call our patrons patients, but they come to us more as customers, and therefore only for skill. When they shall come for advice, and we shall be able to sustain ourselves as teachers, we may have some claim to the title of the professional gentlemen. Our relation to those we serve, and to the public, must be one of so much confidence, dignity and learning, that mothers will come to us for instruction to prevent bad teeth in their children, that shall reach their own habits prior to their children coming into the world.

2nd. During infancy and early childhood, the teeth are so emphatically *fed* by what is taken into the system that much attention should be given to the quality of their food, to the condition of their digestive organs, and to the normality of assimilation. How much there is here for professional instruction.

3rd. In the process of teaching there is so much of interest, in its effects on the system there is so much of practical importance, and in parents' minds on this subject there is so much of ignorance and error, that patient and persistent instruction will bring rich reward. It is astonishing to see how full the minds of parents are of wild notions, foolish fables, unfounded prejudices, and hurtful errors; physicians have so much learned nonsense and so many false theories, and unfounded diognostigations, on this subject, that it is quite time the dental profession took the lead in clearing up the whole subject. Let us teach the people that teething is a simple physiological process, and generally an easy, healthy, and undisturbing one, by no means responsible for the scores of diseases of early childhood attributed to it; and that when it is a disturbing cause it is quite controllable under intelligent management.

4th. The intrinsic character of children's teeth are not so much at fault as is generally imagined. If they are carious, it is generally in consequence of other diseases viciating the fluids of the mouth: the blood may be improvised or perhaps, in a degree, disorganized, the circulation sluggish, and the vitality low. When a boy, my father was very particular that I should frequently assorted the bin of potatoes, because he said only one or two rotten potatoes would cause many more to rot. So with the teeth.

5th. How much of the irregularity of the teeth, and deformity of the oral arch would be avoided by a very little prevention and early treatment. What an ill-shaped arch mere thumb sucking will cause; sometimes the irregularity of several teeth will be produced by one tooth being allowed to crowd itself into an abnormal position. Parents should value more the homely old adage: "A stitch in time saves nine."

6th. It is deplorable to see how the deciduous teeth are allowed to go to destruction, on the plea that they are of little consequence, because others will take their place. It is no wonder that, when these "others" come they are immediately so surrounded with fermentation, acidity and decomposition, that many of these too are soon pronounced of "little consequence." Let us each seek to speed the day when the preservation of the deciduous teeth in a healthy condition, till the proper time for their shedding, will be considered as important as the care of the permanent set.

7th. And what shall we say of the present wholesale destruction of the first permanent molars? How many parents suppose they belong to the temporary set? We once even had a physician come to us insisting on the extraction of a decayed first permanent molar, because it was a first tooth in that place. "Do we not shed all our first teeth?"

said he. He was astonished when I told him more than a third of our teeth had no predecessors. And how many dentists there are who, though they know these teeth are of the permanent set, condemn them as necessarily short lived. They are really as good as the second permanent molars; the main difference is in their surroundings while young and tender. They come while the temporary teeth are in a rapid state of absorption, and for a year or more they are allowed to be surrounded by acidity and decay. No wonder they are disintegrated. But this is not the state of things nature designed; and if the temporary teeth were kept in a proper condition, and the general health in good tone, it would not be so. Then the first permanent teeth would be as permanent as any of the second set.

8th. Procrastinating attention to children's teeth is another cause of their destruction. As we have intimated, parents put off "the evil day" as they call it "till they really must attend to them;" and then "Doctor, I suppose it is no use trying to save the worst of them. Do your best to give the poor child some degree of quiet: and at another time we must see what can be done to put all his teeth in good condition." Even if they are assured that these "worst" can be saved, they want to know how much more it will cost than to "pull them out." This negligence and penuriousness is the sin of most parents. They never seem to think of applying to this subject the wisdom of the proverb that "An ounce of prevention is worth a pound of cure." Early attention will not prevent caries; for these teeth are, at best, soft and easily affected, specially if other diseases are allowed to deteriorate the oral fluids; but if decay is removed while incipient, and carious cavities filled while small, and the secretions of the mouth are kept healthy, extensive decay cannot take place.

9th. By such prompt, intelligent work children's great dread of dental work will be avoided, because the treatment of incipient decay and the filling of small cavities, and even the extracting of the deciduous teeth, *at the proper time* are all nearly painless operations.

10th. And this class of work should be made to pay the dentist. There is no reason why advice, and the considerable time spent with parents and children in this direction should be free because little or no real work is done. Our patients must be made to feel that our advice is worth as much as our skill; and that the time spent in winning the heart and judgment of their children and educating them to a proper care of their teeth should be as remunerating as filling decayed teeth. But if the spending of so much time and nervous energy with children is not immediately profitable it will be mediately. That dentist who can hold the confidence of children, will be sure to have the confidence and patronage of those who are older. We have never yet

seen the dentist who could win the children who did not win the parents. Besides, those children who prefer you in childhood will prefer you in after years, and all through the years they will be your best advertisement.

HOW TO SUCCEED IN HAVING AN ARTICLE PUBLISHED.

No doubt many who write for the press are discouraged because their articles do not appear. Let us hint, to young aspirants especially, how they may succeed in being heard.

1. Have something to say. Some write without having anything to say, nothing of either point nor substance. Others have the faculty of saying something—a great deal, perhaps—and saying it with grandiloquence, covering whole sheets—with nothing of importance. Keep silent till you have a thought well worth publishing, and then—don't publish it. Wait till you have thoroughly matured it, and become so familiar with its advantages that you are sure the public will thank you for it. Many from diffidence withhold what is important, but others rush into print, as they crowd to the front in our conventions, to push *themselves* into prominence rather than *an important thought*.

2. Choose your words with care. The idea that style is of little importance, if your thought is good, is pernicious. Take plenty of time; write and re-write, till your thought is clothed as attractively as possible. Many a good thought fails to appear in print, or if it appears, to find lodgment in the reader's mind, because it is blunderingly or offensively expressed. Don't get on stilts and employ far-fetched and inflated phrases, nor be so stiff and precise as to be irksome. In your style be terse but not stinted, interesting but not diffuse, free but not turgid, full but not prolix; and be quite as careful to be plain without being monotonous and brief without being incomplete. In other words, use common, straightforward language, easy to write and as easy to understand. Avoid that going round Robin Hood's barn, called an introduction, to get at your main thought. Strike it squarely with your first sentence, and stick to it in every sentence till its presentation is perfected, and then *stop*. Strike out those few sentences to close up with. Stop, as the bullet stops that has hit the mark, and not as one that has hit nothing and therefore keeps bounding and rolling and tumbling on till it stops from mere exhaustion.

3. Confine yourself to one prominent thought. Better speak twice in meeting than speak too long. So in writing.

Arsenic in Killing Pulps of Teeth.—If the exposed pulp of a tooth *must* be killed,—which we believe is extremely rare,—arsenic will seldom produce pain if applied without morphia, and with tannin. Even if the tooth is aching at the time of its application, it will generally soothe it to death. It is sometimes desirable to precede its application with a little cotton saturated with chloroform. Morphia is an extreme irritant to a raw surface,—try it on a wound or burn,—and therefore instead of abating toothache caused by an exposed pulp, it increases it. The cause of pain in such a pulp is inflammation, which is not an increased flow of blood to a part, as generally supposed, but a clogging of the venous blood of a part, so that the blood cannot return through the veins with the normal freedom it is brought to the part. Tannin constricts the pulp, so that instead of the nerves being pressed by the swelling of the mass within confining walls, the whole becomes tanned and shrunken. Pain everywhere in the body is caused by pressure on the nerves, especially on their termini.

A good combination of the arsenic is:—One part by weight of arsenic and two of tannin, to be made into a thin paste by one part oil cloves and two parts creasote. The finer the arsenic is pulverized the less is required to do the work; in fact, but an extremely small amount of the paste should be applied. Twenty-four hours is generally sufficient to devitalize the pulp; though when this very small amount is used there is little danger in its remaining longer, and generally the pulp will be found sufficiently tanned to be brought away whole. Sometimes the paste has to be applied a second time. After touching the pulp with this paste loosely, filling the cavity with cotton, and then on this drop a little sandarac varnish. Any filling which necessitates pressure on the pulp will, of course, produce pain.

“What are the systemic considerations in regard to acid vegetables, fruits, condiments, etc.? What is the medication?”

“Ans. They bring on an acid condition, which in turn influences the fluids of the mouth, causing sensitive dentine, setting the teeth on edge, increasing existing decay, etc. In treating forbid indulgence (for a few days or a week according to the severity of the case) of food containing sours, pickles, strawberries, apples, peaches, lemons, tomatoes, etc. Medicine is alkaline.”—*Quiz Questions by Prof. Flagg.*

Till we were thirty five years of age we were a severe dyspeptic; but we had good teeth. We have learned to behave ourself since, so that we have been pretty healthy and our teeth remain good. This idea that a sour stomach causes the teeth to decay is seldom true. In the first place, all healthy stomachs are sour; and in the second place, it is seldom that even excessive sourness of the stomach decays the teeth. Our own teeth would have been all eaten up with acid if the

Professor's doctrine was true, for we were terribly afflicted with this condition of the stomach for twenty years.

Then the remedy to prevent caries occurring from acidity of the stomach, we are advised to abstain for a time from fruit, etc. The *stomach* may be in a condition to forbid the indulgence in these things, and, if eaten to excess, may put "the teeth on edge," but fresh vegetable acids seldom produce caries. Often the teeth, and the stomach too, are benefitted by acid food. This is specially true when from degeneracy of the tissues, or from the presence of decayed animal food there is the presence of ammonia. Then the acid will unite with the ammonia and both are neutralized. How often, for this reason, a sharp acid makes the mouth feel sweet and clean; and, as it enters the stomach, produces eructations of gas, as though you had added to its contents a strong alkali. It is the uniting of the fresh acid with the ammonia.

The Dentist vs. The Physician.—A lady came into my office once, saying, "Doctor, my physician has been trying to cure a painful disease of my mouth for three months, and now, after all I have suffered, and after all I have paid him, without any relief, he says: "If you become no better by the end of this month, I will send you to Dr. Welch, and see if the trouble is not connected with the teeth." Now, doctor, I have not waited for the month to end, but I have become so indignant that he should not have suggested this sooner, I have come twenty-six miles to consult you."

Requesting her to take the chair, I saw the trouble, removed it, and in three minutes told her she could return home, for all was cured; and it proved to be so.

And so many persons are treated for oral diseases by physicians, for months, to no purpose, who might be cured almost or quite immediately by a skilful dentist. Physicians do not study this class of diseases as much as they should, and their practice with them is too infrequent to give them much skill with them. But a dentist of experience is continually meeting neuralgies and hidden troubles of the mouth and contiguous parts, and studying them so closely, that of course he is signally successful in their treatment.

American climate on the teeth is extremely pernicious, says a contemporary. "This he adds, "is proven in the fact that colonies of foreigners having sound teeth, coming to this country have in a few years to resort to artificial teeth."

This reasoning is fallacious. It is not the climate, but the change of their habits which is the cause of their teeth decaying. When practicing in Minnesota we had many of these new colonists come to us for

dental service, and almost invariably, one of the first questions they ask would be "Doctor, why do my teeth decay so much more rapidly in this country than in the old?" Conversation would generally elicit the fact that in this country they indulged in greater luxuries, used their teeth less on hard food, and especially, indulged in more sweets. This last item reminds us of an incident. We once bought out a confectionery and though we did not personally run it, we were frequently in the store and candy manufactory, where we eat much candy. Our teeth were soon going to ruin, and we could not divine why till a dentist told us it was the excessive use of sugar. By stopping this pernicious practice, we saved our teeth. These colonists in their native land seldom saw sugar; here it is so plenty and so cheap, they eat it in almost every form; and of course such people are not careful to remove the sweet from their mouth till it has turned to acid.

If they were to eat principally of simple food, and that which requires good, hard mastication, as they were accustomed to in the old country, there would be less change in the condition of their teeth. But their increased wages here, and the cheapness and luxuries causes them to indulge to their hurt. And all this is a good lesson for natives as well as foreigners.

From irritation to putrefaction.—Irritation by a blow, or by any internal irritant, as foreign or effete matter, produces *congestion*, or tension of the blood vessels,—a constringency which hinders the normal flow of blood through the part. If not relieved, this tension is followed by a collapse of the walls of the vessels which still further prevents the free circulation of the blood, giving us redness, heat, and swelling. This partial stagnation still further retards the circulation and forces new channels for the blood. It also produces sufficient disorganization of the blood to cause fibrin, to lodge on the walls of the blood vessels and thus farther clog the blood. If this is not relieved the corpuscles degenerate into pus, and we have general disorganization of the part—suppuration.

Collodion as a covering of exposed nerves is advocated by some. With all of us the main object is to have something between our oxyphosphate and the pulp that is non-irritating. Of course a very small quantity is necessary. Let us by all means possible save exposed pulps; and the more persistently and intelligently we try the more frequently we shall succeed.

The county in Florida that has the fewest doctors has also the smallest death rate. The natives are trying to decide which of these facts is cause and which effect.

INTIMACY BREEDS CONTEMPT.

The relation of dentist and patient,— as it is with physician and patient,— is so close that nothing but a dignified reserve can prevent an intimacy which breeds contempt. Because patients come to us for professional work is no reason we should expect to become their friend and acquaintance and yet many dentists, before they have completed their professional engagements seem to think they must pry into all the private affairs of their patients—their failures and successes in business, their likes and dislikes in society, and even their more private concerns. If their patient is of the gentler sex, this intimacy too often includes a maudlin sentimentality and repulsive improprieties. It is astonishing such dentists are tolerated in any society. They certainly lose the respect of their best patrons. Intimacy breeds contempt.

Teach Your Patients.—It will not do to allow a single patient to pass from your office without being wiser than when he entered it. The common people and the otherwise well educated people, even physicians, come to us ignorant of nearly everything pertaining to our calling; and the circumstance which brings them generally prepares them to be attentive scholars. Sometimes what may be told them is worth more than what may be done for them.

Action has been filed in the United States Circuit Court for the Eastern District of Pennsylvania by The Wilmington Dental Manufacturing Company against Gideon Sibley, for infringement of patent and trade-mark for samples of artificial teeth.

Notice has been entered for an application for a preliminary injunction to restrain defendant from further circulation of the sample cards which he has been issuing in imitation of The Wilmington Dental Manufacturing Company's cards, and such motion has been set for a hearing on Monday, April 19.

In support of the motion an affidavit has been filed by Dr. J. F. Frantz, the President of The Wilmington Dental Manufacturing Company, setting forth that said Company was first to adopt the use of such cards for artificial teeth, and was imitated by defendant, and that such infringement has inflicted serious injury on its business.

Cocaine. Dr. O. Wheeler, of Borrian Springs, Mich., writes that from his experience he thinks we should be cautious in the use of this drug. In the use of very small quantities he has seen extreme effects.

Cracking nuts with the teeth.—No one should turn their jaws into a nut-cracker; it is dangerous even for women to bite off as they often do, the ends of thread in sowing.

Attendance at Dental Colleges.

New York College of Dentistry, at its last (20th) session had one hundred and seventy-nine matriculates, and the following fifty graduates:

Charles B. Atkinson, Edward Bornschein, Alfred Berghammer, Henry N. Betting, Sands J. Bowman, Charles A. Bush, William J. Brennan, Victor G. Barr, Earnest Bart, Furman Clayton, Joseph C. Clegg, Willis W. Coon, George D. Coen, Andrew McC. Crandall, Frank C. Chamberlain, Elwood C. Davis, Lewis Engle, Edward D. Frost, William F. Heath, John I. Hart, Charles DeW. Henry, Ferdinand Heindsmann, Jr., Edward P. Jenkins, William H. Kenzel, Jr., Frederick B. Keppy, George Koch, Isaac W. Knapp, John C. Lynch, Edmund E. Minner, Frank J. Maynard, George P. Manville, Frank A. Myrick, Thomas W. Onderdonk, Bissell B. Palmer, William M. Slack, Sidney E. E. C. K. Smith, George J. Schreiber, George C. Sanders, Leverett Somers, George Sandhusen, Louis E. Stuart, Peter S. T. M. Sigveland, Friend M. Schell, Ernest Sturridge, Robert Stewart, Archibald Taylor, Jr., Thomas C. Treadwell, Eugène S. Vogt, Joseph S. Vinson, James C. Whaley.

The Philadelphia Dental College had at its last session 146 matriculates. The following are its fifty graduates:

New York,—H. Behrens, C. W. Collins, C. W. Huntington, W. B. Knox, F. A. Post, J. P. Ruf, C. E. Thompson, H. E. Frester. Pennsylvania,—E. E. Bentzel, Cornelia Brown, H. H. Burchard, C. G. Gabel, Jennie R. Gould, J. A. Greenawalt, G. Hickman, W. A. J. Holman, A. R. Markel, C. E. Stephenson, J. C. White, S. M. White, H. Yerkes; Missouri,—G. Brown; Texas,—B. B. Bray, H. T. Walker; California,—W. A. Bryant, A. Jackson; Delaware,—J. G. Burton, A. H. Carlile; Ohio,—G. W. Cocran, G. Mitchell; Massachusetts,—T. R. F. Fitzpatrick, Wm. J. Newton; Illinois,—A. B. Freeman, L. K. Stewart; New Jersey,—H. L. Gilmore, O. E. Ingalls; Maine,—C. C. Patton, W. S. Pason, F. W. Smith; Florida,—C. H. Riggs; Connecticut,—C. D. Tilley; Canada,—W. R. G. Downs, E. J. Husband, W. J. Quinlan, W. H. White; Sweden,—A. C. Hafstrom; South Africa,—W. C. Robbins; Chili,—M. P. U. Zegers.

The Indiana Dental College had at its last session twenty-eight matriculates and the following eleven graduates: Indiana,—S. L. Jones, O. S. Linn, J. H. Palin, R. M. Smiley, W. N. Wilson; Illinois,—E. E. Jones; Massachusetts,—L. L. Clark; Pennsylvania,—J. E. Montgomery; Kentucky,—A. S. Price; Ohio,—W. H. Rowand, E. E. Stewart.

The Pennsylvania College of Dental Surgery has just closed its thirtieth session. There were 146 matriculates. The 48 graduates were:

Pennsylvania,—T. Balderson, F. H. Benner, W. F. L. Biddell, A. C. Blind, A. P. Brubaker, A. M., M. D., W. E. Holland, J. H. Keisel, W. A. Kessler, J. P. Libhart, W. R. McCloskey, J. E. Mohr, F. W. Monroe, C. S. Potts, L. Pownall, J. C. Rankin, J. S. Rutter, J. H. Sahler, J. Tait, T. W. Thomas, J. E. Weirick, O. Wernickie; New York,—B. H. Goodsell, L. A. Kelsey, O. Neymann, E. P. Robinson, O. H. Taft, P. W. Wicks; Ohio,—W. T. Chambers, J. T. Price; Iowa,—L. F. Gould, W. J. Phillips; New Jersey,—H. G. Keeler, D. S. Lyon; Missouri,—C. Swap; Utah,—A. M. Masser; Canada—J. F. Adams, G. A. Swann, J. J. Whaley; Germany,—A. Custner, L. M. Diederich, J. Nauroth, Marian M. Schneegans; West Indies,—H. Fraser, Nettie Ogilvie; Cuba, J. G. Santana; England,—H. C. Smale; U. S. of Columbia,—N. E. Soto.

The Baltimore Dental College at their last session had 102 matriculates. There were 43 graduates, as follow:

Maryland,—H. H. Carroll, J. W. Foley, G. C. Lamback, J. W. Mitchell, L. E. Payne, R. W. Starr; Pennsylvania,—A. L. Ashbrook, G. W. Baker, R. G. Covode, W. M. Downey, W. B. Delaney, J. F. Gregg, S. H. Hauston, T. C. Van Kirk; New York,—S. Hubbell, A. C. Lindsey, J. M. Overshire, J. F. Patterson, J. B. Wright; North Carolina,—C. W. Bradsher, H. A. Joyner; South Carolina,—W. F. Brown; Louisiana,—C. Cappel, R. H. Marshall; Georgia,—H. S. Colding, E. Hill, H. H. Johnson, A. T. Summerlin, W. H. Weaver; Virginia,—W. B. Dulaney, B. Hobson, J. E. Orrison, R. O. St. Clair, F. W. Stiff; Massachusetts,—J. P. Farley; Florida,—A. Burghard; New Jersey,—C. C. Lauback, W. Pinney; Alabama,—A. A. Pierson; Tennessee,—R. S. Russell; District of Columbia,—J. E. Hendrickson; Colorado,—E. A. Bryant; Canada,—H. F. Baynes; West Indies,—E. E. Colerdean.

Chicago College of Dental Surgery—The matriculates for the last session were eighty-one, an increase of thirty-one over the previous course.

The degree of D. D. S. was conferred on the following graduates:

H. F. Carson, Louis Clusmann, J. G. Emery, G. W. Entsminger, Frank Eshbaugh, E. A. Huxmann, H. F. Marcoux, T. F. Molt, O. H. Staehle, James Stewart, T. B. Wheeler, A. R. Wilcox, Illinois; E. M. Cheadle, Oregon; J. P. Mertes, Wisconsin; R. E. Moon, Indiana; E. O. Whipple, New York.

T. W. BROPHY, *Secretary*.

Vanderbilt University—Dental Department.—Number matriculates, seventy-six; graduates, forty, as follows: Tennessee,—E. W. Blakemore, S. H. Keener, T. A. Pope, E. E. Prothro, S. C. A. Kirby, D. B. Turner; Illinois,—G. F. Brown; Kentucky,—A. P. Campbell, W. A. Cotton, E. N. Fruit, D. Haines, W. N. White; Georgia,—T. Cole, T. Crenshaw, J. S. Fann, J. E. Ferguson, F. H. McCalla, G. T. Neal, J. E. White, E. T. Winkler; Florida,—L. M. Frink; South Carolina,—R. M. Galloway, J. W. Guerard, W. B. Houston, J. L. Stokes, A. C. Strickland, M. Simmons; Louisiana,—G. A. Louque, S. J. Powell, S. J. Aarrell; Texas,—R. L. Hensley, N. B. McLean; Mississippi,—A. D. Lampkin, M. J. L. Townsend, B. Truly; Alabama,—W. A. Patrick, W. F. Slaughter; Virginia,—M. S. Gale; North Carolina,—J. Ramsey, J. W. S. Spurgeon.

University of Maryland, Dental Department. The last session there were 91 matriculates. The following are the 27 graduates. Maryland,—F. A. Baden, C. W. Harting, F. H. Sunsdon, L. T. McGill, C. R. Purnell; in Pennsylvania,—H. E. Basehore, J. S. Diehl, A. H. Greenawalt, W. H. Lowell, J. A. Wall; Virginia,—J. H. Hoffman, W. J. Pleasants, W. E. Proctor; West Virginia,—W. W. Bruce; South Carolina,—J. W. Bookhart, A. H. Chafee, E. A. Gasque, G. A. Higgins, B. F. Sims; New York,—C. L. Furman, F. E. Slocum; North Carolina,—J. M. Riley; Texas,—L. N. Shields; Germany,—E. Amand; France,—E. Brugeille; Brazil,—J. G. Emerson.

Royal College of Dental Surgery of Ontario.—The following sixteen received the degree of Licentiate of Dental Surgery, (L. D. S.): J. G. Bannerman, J. H. Carrique, C. E. Church, A. M. Clark, J. A. Fissault, G. T. Fitzgerald, Robert Haslett, R. S. Ludlow, W. A. Leggo, E. A. Martin, J. A. Marshall, Charles McKinlay, James Stirton, Joseph Nolin, Ashley Weese, W. M. Wonder.

The Missouri Dental College.—Matriculates, 29; graduates, 8, as follows: Illinois,—A. S. Halstead, W. W. Hart, T. E. Heatherly; Missouri,—A. J. McDonald, H. L. McKellops, G. L. Mock, M. D., R. Rembe, Charles Summa.

The Kansas City Dental College, at its last session had fifteen matriculates, and the following two graduates:

Kansas,—Mr. Tullis; Colorado,—J. N. Chipley

Minnesota Hospital College.—Dental department reports fourteen matriculates and the following eight graduates: J. Dickson, C. V. R. Doolittles, G. W. Dysinger, A. W. French, W. R. Martin, E. J. Morrisson, C. L. Remington, W. H. Shaver, M. D.

Miscellaneous.

THE MANUFACTURE OF OXYGEN.

The *Pharmaceutical Record* for October, tells us that the chemical wonder of the London Inventions Exhibition is said to be the manufacture of oxygen by the process of Brin Frères. They have made what is really an artificial mineral lung of anhydrous oxide of barium, and with this, by an ingenious process, they simply take up the oxygen from the atmospheric air. First, the air is drawn by means of a partial vacuum through a vessel of quicklime, which absorbs all the carbonic acid and moisture, and reduces it to a mixture of oxygen and nitrogen. These gases are then drawn into the retorts, heated at 500° , and the artificial lung absorbs the oxygen, while the nitrogen is drawn off to a gasometer for conversion into ammonia, etc. The Brins have for the first time made the artificial lung indestructible. The use of baryta for the purpose is not unknown, but hitherto the baryta has been perishable, and has required renewal every twenty-four hours, at great expense. They make it virtually indestructible and unchangeable. In this way they claim to have effected an absolute revolution in chemistry, for, with a lung for the machine, and the atmospheric air for the material, they can make just as much oxygen as they like, and its uses, present and prospective, are almost innumerable and incalculable. For ventilation, aerating water without carbonic acid, for increasing the heat of blast furnaces and the light of lamps, its uses are self-evident. The nitrogen, which was at first looked on as wasted, has, by a process due to the same inventors, been turned into ammoniacal salts for manure. Most of the uses of these products were known. What is claimed is the almost fabulous reduction in the cost of production. The chemical text-books, according to Messrs. Brin, are at fault as to the possibilities of baryta. They all teach that it is destructible, and the Brins maintain that, as they know how to treat it, it is indestructible. Oxygen in large quantities means a revolution in half the processes of chemical industries.—*Medical Science*.

A Case of Hornet-Sting.—In the *Indian Medical Gazette*, Dr. W. Conry reports the case of a man who was stung by a hornet on the left antero-lateral region of the neck, about one and a half inches above the clavicle. As it occurred about 7 A. M., and within a few yards of the Regimental Hospital, Dr. Conry saw him within ten minutes of the occurrence. He was pulseless; surface cold and clammy; heart-sounds through the stethoscope slow, indistinct, convulsive; breathing slow, noiseless, and superficial. He lay motionless, with closed eyes, but on being addressed in a loud tone, opened his eyes and tried to speak. The pupils were dilated. Under the ordinary remedies reaction set in about twenty minutes later, and he vomited once. The sole puncture was plainly visible, but, excepting slight pain, no local effect was noticeable. In two hours he was as well as ever. He was a tall and robust man. The hornet was medium sized, bright yellow, with black stripes.

MR. DEPEW ON TOBACCO.

Mr. Chauncey M. Depew, when in Albany the other day, met a friend, who offered him a cigar. Mr. Depew declined it, and said: "I was a confirmed smoker, smoking twenty cigars a day, up to about a dozen years ago, when I gave up the habit. I now do not use tobacco. Twelve or thirteen years ago I found myself suffering from indigestion, with wakeful fits at night, nervousness, and inability to submit to much mental strain. I was in the city of Albany one day, and bought a twenty-five-cent Partaga. I was walking up Broadway, and at the corner of State street I took the cigar out of my mouth, and looked at it. I had smoked about an inch of it. A thought struck me, I had been reading a German savant's book on the unhealthfulness of the use of tobacco. I looked at my cigar, and I said, 'You are responsible for this mischief.' I threw that Partaga into the gutter, and resolved not to smoke again. For six months I suffered the torments of the damned. I wanted to smoke, but I resolutely refused. My appetite meanwhile was growing better, my sleep was growing sounder, and I could do more work. I did not smoke up to two or three years ago. After I had worked for seventeen hours continuously one day, late at night I thought I would try a cigar as a soothing influence. I lit a cigar. It was delicious. I enjoyed the aroma of the smoke and the pleasure of the cigar more than I can say. The next day I smoked four cigars and the next two. I found the use of tobacco was affecting my physical system, and I stopped it entirely, and have not commenced it again, and probably never shall.

CAPSICUM IN GASTRO-INTESTINAL AFFECTIONS.

Dr. M. Ceballos Torres, of San Pedro, Peru, writes in the *Cronica Medica* of Lima, an interesting article on the uses of capsicum as a therapeutic agent in various maladies. He mentions that a certain medical professor who had charge of a hospital clinic had the misfortune to suffer from chronic dysentery which resisted all treatment. He took medicines and enemas of various kinds and confined himself rigorously to a very strict diet, which after a time became very irksome, so that one day he could not resist the temptation to break through it and risk the consequences. He therefore indulged in a good dinner, with which he took plenty of chilies, red pepper, and fully expected to have to suffer severely for his imprudence; on the contrary, however, he found himself decidedly better, and therefore repeated the novel treatment of a good dinner with plenty of chilies regularly, with the result that his troublesome affection left him entirely. The writer also mentions that once being in perplexity about a patient with bleeding internal piles, whom he had had under treatment for a long time without producing much effect, he talked over the case with the above-mentioned professor, who suggested capsicum. This was given with food in increased doses. An improvement was soon observed, and after two months of this treatment the patient was completely cured. Other instances in which capsicum given in pills has proved efficacious in various forms of vomiting, anorexia, and bilious fever are mentioned.—*Med. Science.*

URTICA, A NEW HEMOSTATIC.

The *Cinn. Lancet and Clinic*, October 17, tells us that Dr. C. G. Roth has lately made some experiments with the ordinary nettle, *urtica dioica*, by applying the expressed juice externally. The young plant is gathered in the spring, the leaves, stems and flowers soaked in a 60 per cent. alcohol for one week and then expressed and filtered. The filtered solution is a dark, greenish-brown fluid with an aromatic odor and taste. When applied with absorbent cotton on bleeding surfaces it arrests hemorrhage promptly, especially if parenchymatous or emanating from small vessels. The blood is converted into a soft homogeneous, not friable, coagulum which seems to enter the capillaries and other small vessels and thus arrests hemorrhage. In epistaxis a cotton plug saturated with this fluid is passed into the nostril and brought in intimate connection with the bleeding surface; if necessary it may be held in place by means of a second dry tampon placed behind it. If the bleeding is at once arrested the plug may be carefully removed after ten minutes. If, however, the blood coming from a larger vessel should continue to ooze through the tampon, the latter may be replaced by a new one. It is, however, rarely necessary to resort to a change and in several hundred instances the author has never seen a case where the hemorrhage was not controlled within half an hour. This new hemostatic liquor has the great advantage over the liq. feri perchloridi that it causes no friable decomposing coagulum. On account of its alcoholic nature, it also possesses antiseptic properties and is very serviceable as an application to freshly incised wounds, where it not only arrests hemorrhage immediately, but also secures rapid union when applied with a cotton compress.—*Med. Science.*

Our Coining Mints.—There are four coining mints, situated at Philadelphia, Pa.; San Francisco, Cal.; Carson City, Nev.; and New Orleans, La., the last being put in operation on Jan. 20, 1879. The largest proportion of assaying and refining is done at New York; Helena, Mon.; Boise City, Ida., and Denver, Col. The Philadelphia Mint is capable of turning out about \$1,500,000 in coined money a month; the San Francisco Mint, \$1,000,000; the Carson City Mint, \$500,000; and the New Orleans Mint, about 500,000 pieces of different denominations. In gold coin the alloy was at first a compound of silver and copper. It was forbidden by statute that the alloy should be more than half silver. It is now nearly all copper, owing to advances in the art of assaying and improved methods in coinage. Under the law of Feb. 28, 1878, which required that between 2,000,000 and 4,000,000 of the new (Bland) dollars should be turned out by the mints every month, the coinage facilities of the Government were severely tested to produce this particular silver coin and maintain the usual supply of gold and subsidiary coins. Silver is sent from the assay offices to the mints pure, or 999 fine, which is about as pure as silver can be. It is sent in large bars, and when received at the mint is melted and alloyed with copper. Coin silver is 900 fine. The amount of standard silver dollars coined in the thirteen months preceding Oct. 31, 1882, was \$30,0007,175.

BALSAM OF PERU AND OIL OF TURPENTINE IN DIPHTHERIA.

Dr. Robert Ofner makes reference in "Centralblatt fuer die gesammte Therapie" to the treatment of diphtheria with oil of turpentine. He reports sixty cases in which he used the balsam of Peru locally. The balsam was diluted with alcohol and turpentine added. He claims that application of this mixture with a soft brush will cause the patches to clean off rapidly and reduces the inflammatory condition in three or four days. But two cases of the series died; and that it was genuine diphtheria he dealt with is proven by paralysis of deglutition, strabismus, etc., that developed as sequels. Ofner recommends in addition a gargle of chlorate of potassium if the child is old enough to use it.

Borax and Nitrate of Potassium in Hoarseness.—The *Kansas City Medical Record* says that these two salts have been employed with advantage in cases of hoarseness and aphonia occurring suddenly from the action of the cold. The remedy is recommended to singers and orators whose voice suddenly becomes lost, but which by these means can be recovered almost instantly. A piece of borax, the size of a pea, is to be dissolved in the mouth about ten minutes before singing or speaking. The remedy provokes an abundant secretion of saliva, which moistens the mouth and throat. This local action of the borax should be aided by an equal dose of nitrate of potassium, taken in warm solution before going to bed.

A New Fusible Alloy.—*Nature* gives the formula of a new alloy which is specially adapted to many important uses in the arts. It melts at the low temperature of 160° F., the temperature of moderately hot water, and considerably below that at which the magic spoons of long ago melted in a cup of tea. Its composition is: Bismuth, 48; cadmium, 13; lead, 19; tin, 20. This new alloy will withstand quite a severe pressure.

Treatment of Itch.—Comessati recommends the following treatment of itch as more simple and successful than any other hitherto used (*Journal de Med.*, No. 4, 1885): 200 grammes ($6\frac{1}{4}$ oz.) of hyposulphite of sodium are dissolved in a litre (1 qt.) of water, and the entire body, before retiring, is treated with this solution. On the following morning the body is treated with a solution containing 50 grammes (2 oz.) of hydrochloric acid in a litre of H_2O . The explanation of this treatment is very simple: sulphur in a state of fine division settles in the pores and remains there for a long time; sulphurous acid and chloride of sodium are also formed. These two results of this reaction are both toxic to the acarus, and the affection is usually cured by a single application.

Cement for Plaster Casts, etc.—To repair broken articles in plaster, a good cement may be prepared as follows: Dissolve small pieces of celluloid in ether. Decant the liquid after a short while. The pasty residue is a cement that will dry rapidly, and not dissolve in water if the articles should be exposed to it.

An incandescent lamp, which requires no vacuum in the globe, has been invented in Germany. The wire used is a mixture of conducting and non-conducting elements, the latter preventing the former from melting.